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=> d stat que l4
L1          21 SEA FILE=HCAPLUS ((LANCTOT C?) OR (LANCTOT,C?) OR (LANCTOT,
               C?))/AU,IN
L2           8 SEA FILE=HCAPLUS ((MOFFAT P?) OR (MOFFAT,P?) OR (MOFFAT,
               P?))/AU,IN
L4          17 SEA FILE=HCAPLUS (L1 OR L2) AND (CLON? OR EXPRESSION)


=> d ibib abs hitrn l4 1-17

L4   ANSWER 1 OF 17  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2003:23026  HCAPLUS
DOCUMENT NUMBER:         138:84429
TITLE:                   Methods, vectors, cell lines and kits for selecting
                         desired nucleic acids by using site-specific
                         recombinase
INVENTOR(S):             Lanctot, Christian; Gingras, Rock; Gaumond,
                         Marie-Helene
PATENT ASSIGNEE(S):      Phenogene Therapeutiques Inc., Can.
SOURCE:                  PCT Int. Appl., 122 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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     WO 2003002735      A2   20030109      WO 2002-CA997    20020628
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                  US 2001-301149P  P  20010628
AB   The present invention provides methods, vectors, cell lines and kits for
     the screening and identification of desired nucleic acids with
     transcriptional activity, or encoding desired proteins by using
     site-specific recombinase. Specifically, the invention is based on the
     use of a site-specific recombinase to excise, from an expression
     vector into which an exogenous nucleic acid having a desired feature has
     been inserted, a region of the vector which is excisable by site-specific
     recombination. Insertion into the vector of a nucleic acid having a
     desired feature, such as nucleic acids capable of changing the
     expression of cellular genes or the state of cellular metab. or
     signaling pathways, triggers the synthesis and/or activity of a site
     specific recombinase, the action of the recombinase allowing an easy
     selection of the expression vector contg. the exogenous nucleic
     acid having a desired feature.

L4   ANSWER 2 OF 17  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2002:783578  HCAPLUS
DOCUMENT NUMBER:         138:118128
TITLE:                   Engineered viruses to select genes encoding secreted
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and membrane-bound proteins in mammalian cells
AUTHOR(S): Moffatt, Pierre; Salois, Patrick; Gaumond, Marie-Helene; St-Amant, Natalie; Godin, Eric; **Lanctot, Christian**
CORPORATE SOURCE: 416 de Maisonneuve West, Phenogene Therapeutics, Suite 1020, Montreal, QC, H3A 1L2, Can.
SOURCE: Nucleic Acids Research (2002), 30(19), 4285-4294
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have developed a functional genomics tool to identify the subset of cDNAs encoding secreted and membrane-bound proteins within a library (the 'secretome'). A Sindbis virus replicon was engineered such that the envelope protein precursor no longer enters the secretory pathway. cDNA fragments were fused to the mutant precursor and **expression** screened for their ability to restore membrane localization of envelope proteins. In this way, recombinant replicons were released within infectious viral particles only if the cDNA fragment they contain encodes a secretory signal. By using engineered viral replicons to selectively export cDNAs of interest in the culture medium, the methodol. reported here efficiently filters genetic information in mammalian cells without the need to select individual **clones**. This adaptation of the signal trap' strategy is highly sensitive (1/200 000) and efficient. Indeed, of the 2546 inserts that were retrieved after screening various libraries, more than 97% contained a putative signal peptide. These 2473 **clones** encoded 419 unique cDNAs, of which 77% were previously annotated. Of the 94 cDNAs encoding proteins of unknown function, 24% either had no match in databases or contained a secretory signal that could not be predicted from electronic data.
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:558401 HCAPLUS
DOCUMENT NUMBER: 134:276395
TITLE: Transcriptional regulation of the gene encoding mouse metallothionein-3 and its **expression** in the organs of the reproductive system
AUTHOR(S): **Moffat, Pierre**; Faraonio, Raffaella; LaRochelle, Olivier; Delisle, Isabelle; Saint-Arnaud, Rene; Seguin, Carl
CORPORATE SOURCE: Centre de recherche en cancerologie, CHUQ, Pavillon Hotel-Dieu de Quebec, Quebec, QC, GIR 2J6, Can.
SOURCE: Metallothionein IV, [International Metallothionein Meeting], 4th, Kansas City, MO, United States, Sept. 17-20, 1997 (1999), Meeting Date 1997, 243-249. Editor(s): Klaassen, Curtis D. Birkhaeuser Verlag: Basel, Switz.
CODEN: 69AGU7
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The mechanisms that govern the specific **expression** of metallothionein-3 (MT-3) gene in normal brain, and its repression in other organs remain unknown. It was found that MT-3 mRNA, in addn. to being present in the brain, is present in other organs particularly in those of the reproductive system. It was shown that AP-2, Sp1 and NF-1 sites are important for maintaining optimal transcriptional activity in P19 cells.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:348185 HCAPLUS
DOCUMENT NUMBER: 131:128012
TITLE: Hindlimb patterning and mandible development require the Ptx1 gene
AUTHOR(S): **Lanctot, Christian**; Moreau, Alain; Chamberland, Michel; Tremblay, Michel L.; Drouin, Jacques
CORPORATE SOURCE: Laboratoire de genetique moleculaire, Institut de recherches cliniques de Montreal, Montreal, QC, H2W 1R7, Can.
SOURCE: Development (Cambridge, United Kingdom) (1999), 126(9), 1805-1810
CODEN: DEVPED; ISSN: 0950-1991
PUBLISHER: Company of Biologists Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The restricted **expression** of the Ptx1 (Pitx1) gene in the posterior half of the lateral plate mesoderm has suggested that it may play a role in specification of posterior structures, in particular, specification of hindlimb identity. Ptx1 is also expressed in the most anterior ectoderm, the stomodeum, and in the first branchial arch. Ptx1 **expression** overlaps with that of Ptx2 in stomodeum and in posterior left lateral plate mesoderm. We now show that targeted inactivation of the mouse Ptx1 gene severely impairs hindlimb development: the ileum and knee cartilage are absent and the long bones are underdeveloped. Greater redn. of the right femur size in Ptx1 null mice suggests partial compensation by Ptx2 on the left side. The similarly sized tibia and fibula of mutant hindlimbs may be taken to resemble forelimb bones: however, the mutant limb buds appear to have retained their mol. identity as assessed by forelimb **expression** of Tbx5 and by hindlimb **expression** of Tbx4, even though Tbx4 **expression** is decreased in Ptx1 null mice. The hindlimb defects appear to be, at least partly, due to abnormal chondrogenesis. Since the most affected structures derive from the dorsal side of hindlimb buds, the data suggest that Ptx1 is responsible for patterning of these dorsal structures and that as such it may control development of hindlimb-specific features. Ptx1 inactivation also leads to loss of bones derived from the proximal part of the mandibular mesenchyme. The dual role of Ptx1 revealed by the gene knockout may reflect features of the mammalian jaw and hindlimbs that were acquired at a similar time during tetrapod evolution.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:204175 HCAPLUS
DOCUMENT NUMBER: 130:350163
TITLE: Neuroendocrine dysplasia in mice lacking protein tyrosine phosphatase .sigma.
AUTHOR(S): Elchebly, Mounib; Wagner, John; Kennedy, Timothy E.; **Lanctot, Christian**; Michaliszyn, Eva; Itie, Annick; Drouin, Jacques; Tremblay, Michel L.
CORPORATE SOURCE: Department of Biochemistry, McGill University, Montreal, QC, H3G 1Y6, Can.
SOURCE: Nature Genetics (1999), 21(3), 330-333
CODEN: NGENEC; ISSN: 1061-4036

PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Protein tyrosine phosphatase .sigma. (PTP-.sigma., encoded by the Ptprs gene) is a member of the LAR subfamily of receptor-like protein tyrosine phosphatases that is highly expressed during mammalian embryonic development in the germinal cell layer lining the lateral ventricles of the developing brain, dorsal root ganglia, Rathke's pouch, olfactory epithelium, retina and developing lung and heart. On the basis of its **expression** and homol. with the Drosophila melanogaster orthologues DPTP99 and DPTP100A, which have roles in the targeting of axonal growth cones, the authors hypothesized that PTP-.sigma. may also have a modulating function in cell-cell interactions, as well as in axon guidance during mammalian embryogenesis. To investigate its function in vivo, the authors generated Ptprs-deficient mice. The resulting Ptprs-/- animals display retarded growth, increased neonatal mortality, hyposmia and hypofecundity. Anatomical and histol. analyses showed a decrease in overall brain size with a severe depletion of LH-releasing hormone (LHRH)-immunoreactive cells in Ptprs-/- hypothalamus. Ptprs-/- mice have an enlarged intermediate pituitary lobe, but smaller anterior and posterior lobes. These results suggest that tyrosine phosphorylation-dependent signaling pathways regulated by PTP-.sigma. influence the proliferation and/or adhesiveness of various cell types in the developing hypothalamo-pituitary axis.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:154099 HCAPLUS
DOCUMENT NUMBER: 130:309510
TITLE: Pituitary homeobox 1 (Ptx1) is differentially expressed during pituitary development
AUTHOR(S): **Lanctot, Christian**; Gauthier, Yves; Drouin, Jacques
CORPORATE SOURCE: Laboratoire de Genetique Moleculaire, Institut de Recherches Cliniques de Montreal, and the Department de Biochimie, Universite de Montreal, Montreal, QC, H2W 1R7, Can.
SOURCE: Endocrinology (1999), 140(3), 1416-1422
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pituitary homeobox 1 (Ptx1) is a homeodomain-contg. transcription factor acting on transcription of all pituitary hormone genes. Its **expression** is first detected in the stomodeal ectoderm and is maintained in all derivs. of this structure, including Rathke's pouch. We now show that Ptx1 is expressed in all pituitary cells but that it is differentially expressed in different lineages at both the mRNA and protein levels. On day 12.5 of mouse embryonic development, cells expressing the highest levels of Ptx1 are restricted to the forming pars tuberalis, also called the rostral tip, a region where the first .alpha.-glycoprotein subunit-expressing cells appear. Coimmuno-localization studies reveal that .alpha.-glycoprotein subunit-pos. cells express the highest levels of Ptx1 throughout development and in the adult gland. The quant. differences in Ptx1 **expression** in pituitary cell lineages may relate to a role in cell proliferation, lineage commitment, and/or the control of organ development.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:467369 HCAPLUS
DOCUMENT NUMBER: 129:184702
TITLE: The PTX family of homeodomain transcription factors during pituitary developments
AUTHOR(S): Drouin, Jacques; Lamolet, Bruno; Lamonerie, Thomas; **Lanctot, Christian**; Tremblay, Jacques J.
CORPORATE SOURCE: Laboratoire de Genetique Moleculaire, Institut de Recherches Cliniques de Montreal, Montreal, QC, H2W 1R7, Can.
SOURCE: Molecular and Cellular Endocrinology (1998), 140(1-2), 31-36
CODEN: MCEND6; ISSN: 0303-7207
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 16 refs. A subfamily of bicoid-related homeodomain factors was recently discovered through its involvement in transcription of pituitary-specific genes. We isolated the first member of this family, Ptx1 (pituitary homeobox 1), through its DNA binding properties whereas a second related gene, Ptx2 (RIEG), was identified by positional **cloning** as the causative gene for Rieger's syndrome. The mechanisms of Ptx action on its target genes as well as its putative roles during development are reviewed with particular emphasis on its role in pituitary function.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:169402 HCAPLUS
DOCUMENT NUMBER: 128:291056
TITLE: The pan-pituitary activator of transcription, Ptx1 (pituitary homeobox 1), acts in synergy with Sf-1 and Pit1 and is an upstream regulator of the Lim-homeodomain gene Lim3/Lhx3
AUTHOR(S): Tremblay, Jacques J.; **Lanctot, Christian**; Drouin, Jacques
CORPORATE SOURCE: Laboratoire de Genetique Moleculaire, Institut de Recherches Cliniques de Montreal, Montreal, QC, H2W 1R7, Can.
SOURCE: Molecular Endocrinology (1998), 12(3), 428-441
CODEN: MOENEN; ISSN: 0888-8809
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Ptx1 (pituitary homeobox 1) homeobox transcription factor was isolated as a transcription factor of the pituitary POMC gene. In corticotrope cells that express POMC, cell-specific transcription is conferred in part by the synergistic action of Ptx1 with the basic helix-loop-helix factor NeuroD1. Since Ptx1 **expression** precedes pituitary development and differentiation, we investigated its **expression** and function in other pituitary lineages. Ptx1 is expressed in most pituitary-derived cell lines and as is the related Ptx2 (Rieger) gene. However, Ptx1 appears to be the only Ptx protein in corticotropes and the predominant one in gonadotrope cells. Most pituitary hormone-coding gene promoters are activated by Ptx1. Thus, Ptx1 appears to be a general regulator of

pituitary-specific transcription. In addn., Ptx1 action is synergized by cell-restricted transcription factors to confer promoter-specific **expression**. Indeed, in the somatolactotrope lineage, synergism between Ptx1 and Pit1 is obsd. on the PRL promoter, and strong synergism between Ptx1 and SF-1 is obsd. in gonadotrope cells on the .beta.LH promoter but not on the .alpha.GSU (glycoprotein hormone .alpha.-subunit gene) and .beta.FSH promoters. Synergism between these two classes of factors is reminiscent of the interaction between the products of the Drosophila genes Ftz (fushi tarazu) and Ftz-F1. Antisense RNA expts. performed in .alpha.T3-1 cells that express the .alpha.GSU gene showed that **expression** of endogenous .alpha.GSU is highly dependent on Ptx1 whereas many other genes are not affected. Interestingly, the only other gene found to be highly dependent on Ptx1 for **expression** was the gene for the Lim3/Lhx3 transcription factor. Thus, these expts. place Ptx1 upstream of Lim3/Lhx3 in a cascade of regulators that appear to work in a combinatorial code to direct pituitary-, lineage-, and promoter-specific transcription.

L4 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:792568 HCAPLUS
DOCUMENT NUMBER: 128:138995
TITLE: A homeodomain gene Ptx3 has highly restricted brain **expression** in mesencephalic dopaminergic neurons
AUTHOR(S): Smidt, Marten P.; Van Schaick, Hermien S. A.; **Lanctot, Christian**; Tremblay, Jacques J.; Cox, Joke J.; Van Der Kleij, Arno A. M.; Wolterink, Gerrit; Drouin, Jacques; Burbach, J. Peter H.
CORPORATE SOURCE: Rudolf Magnus Institute for Neurosciences, Department of Medical Pharmacology, Medical Faculty, Utrecht University, Utrecht, 3584 CG, Neth.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1997), 94(24), 13305-13310
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mesencephalic dopaminergic (mesDA) system regulates behavior and movement control and has been implicated in psychiatric and affective disorders. The authors have identified a bicoid-related homeobox gene, Ptx3, a member of the Ptx-subfamily, that is uniquely expressed in these neurons. Its **expression** starting at E11.5 in the developing mouse midbrain correlates with the appearance of mesDA neurons. The no. of Ptx3-expressing neurons is reduced in Parkinson patients, and these neurons are absent from 6-hydroxy-dopamine-lesioned rats, an animal model for this disease. Thus, Ptx3 is a unique transcription factor marking the mesDA neurons at the exclusion of other dopaminergic neurons, and it may be involved in developmental detn. of this neuronal lineage.

L4 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:724225 HCAPLUS
DOCUMENT NUMBER: 128:58020
TITLE: Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome
AUTHOR(S): Crawford, Michael J.; **Lanctot, Christian**; Tremblay, Jacques J.; Jenkins, Nancy; Gilbert, Debra; Copeland, Neal; Beatty, Barbara; Drouin, Jacques
CORPORATE SOURCE: Laboratoire Genetique Moleculaire, Institut Recherches Cliniques Montreal, Montreal, QC, H2W 1R7, Can.

SOURCE: Mammalian Genome (1997), 8(11), 841-845
CODEN: MAMGEC; ISSN: 0938-8990
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ptx1 belongs to an expanding family of bicoid-related vertebrate homeobox genes. These genes, like their Drosophila homolog, seem to play a role in the development of anterior structures and, in particular, the brain and facies. We report the chromosomal localization of mouse Ptx1, and the **cloning**, sequencing, and chromosomal localization of the human homolog PTX1. The putative encoded proteins share 100% homol. in the homeodomain and are 88% and 97% conserved in the N- and C-termini resp. Intron/exon boundaries are also conserved. Murine Ptx1 was localized, by interspecific backcrossing, to Chr 13 within 2.6 cM of Caml. The gene resides centrally on Chromosome (Chr) 13 in a region syntenic with human Chr 5q. Subsequent anal. by fluorescent in situ hybridization places the human gene, PTX1, on 5q31, a region assocd. with Treacher Collins Franceschetti Syndrome. Taken together with the craniofacial **expression** pattern of Ptx1 during early development, the localization of the gene in this chromosomal area is consistent with an involvement in Treacher Collins Franceschetti syndrome.

L4 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:494099 HCAPLUS
DOCUMENT NUMBER: 127:203454

TITLE: The bicoid-related homeoprotein Ptx1 defines the most anterior domain of the embryo and differentiates posterior from anterior lateral mesoderm

AUTHOR(S): **Lanctot, Christian**; Lamolet, Bruno; Drouin, Jacques
CORPORATE SOURCE: Laboratoire de genetique moleculaire, Institut de recherches cliniques de Montreal, Montreal, QC, H2W 1R7, Can.

SOURCE: Development (Cambridge, United Kingdom) (1997), 124(14), 2807-2817
CODEN: DEVPED; ISSN: 0950-1991
PUBLISHER: Company of Biologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ptx1 is a member of the small bicoid family of homeobox-contg. genes; it was isolated as a tissue-restricted transcription factor of the pro-opiomelanocortin gene. Its **expression** during mouse and chick embryogenesis was detd. by in situ hybridization in order to delineate its putative role in development. In the head, Ptx1 **expression** is first detected in the ectoderm-derived stomodeal epithelium at E8.0. Initially, **expression** is only present in the stomodeum and in a few cells of the rostroventral foregut endoderm. A day later, Ptx1 mRNA is detected in the epithelium and in a streak of mesenchyme of the first branchial arch, but not in other arches. Ptx1 **expression** is maintained in all derivs. of these structures, including the epithelia of the tongue, palate, teeth and olfactory system, and in Rathke's pouch. **Expression** of Ptx1 in craniofacial structures is strikingly complementary to the pattern of goosecoid **expression**. In addn., Ptx1 is expressed early (E6.8) in posterior and extraembryonic mesoderm, and in structures that derive from these. The restriction of **expression** to the posterior lateral plate is later evidenced by exclusive labeling of the hindlimb but not forelimb mesenchyme. In the anterior domain of **expression**, the stomodeum was shown by fate mapping to derive from the anterior neural ridge (ANR)

which represents the most anterior domain of the embryo. The concordance between these fate maps and the stomodeal pattern of Ptx1 **expression** supports the hypothesis that Ptx1 defines a stomodeal ectomere, which lies anteriorly to the neuromeres that have been suggested to constitute units of a segmented plan directing head formation.

L4 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:336910 HCAPLUS
DOCUMENT NUMBER: 125:30582
TITLE: The addition of a glycosyl-phosphatidylinositol-anchor to a soluble form of neutral endopeptidase re-establishes its apical targeting in LLC-PK1 cells
AUTHOR(S): Howell, Steven; **Lanctot, Christian**; Cailler, Francoise; Crine, Philippe
CORPORATE SOURCE: Dep. de Biochimie, Univ. de Montreal, Montreal, QC, H3C 3J7, Can.
SOURCE: Biochemical Society Transactions (1996), 24(2), 185S
CODEN: BCSTB5; ISSN: 0300-5127
PUBLISHER: Portland Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Addn. of a glycosyl-phosphatidylinositol-anchor restored the polarized **expression** of the ectodomain of neutral endopeptidase at the apical surface of LLC-PK1 cells.

L4 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:334495 HCAPLUS
DOCUMENT NUMBER: 125:50560
TITLE: Ptx1, a bicoid-related homeo box transcription factor involved in transcription of the pro-opiomelanocortin gene
AUTHOR(S): Lamonerie, Thomas; Tremblay, Jacques J.; **Lanctot, Christian**; Therrien, Marc; Gauthier, Yves; Drouin, Jacques
CORPORATE SOURCE: Lab. Genetique Moleculaire, Inst. Recherches Cliniques Montreal, Montreal, QC, H2W 1R7, Can.
SOURCE: Genes & Development (1996), 10(10), 1284-1295
CODEN: GEDEEP; ISSN: 0890-9369
PUBLISHER: Cold Spring Harbor Laboratory Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The pituitary gland contains six distinct hormone-producing cell types that arise sequentially during organogenesis. The first cells to differentiate are those that express the pro-opiomelanocortin (POMC) gene in the anterior pituitary lobe. The other lineages, which appear later, include cells that are dependent on the POU factor Pit-1 and another POMC-expressing lineage in the intermediate pituitary lobe. Using a AtT-20 cells as a model for early **expression** of POMC in the anterior pituitary, we have defined a regulatory element conferring cell specificity of transcription and **cloned** a cognate transcription factor. This factor, Ptx1 (pituitary homeo box 1), contains a homeo box related to those of the anterior-specific genes bicoid and orthodenticle in Drosophila, and Otx-1 and Otx2 in mammals. Ptx1 activates transcription upon binding a sequence related to the Drosophila bicoid target sites. Ptx1 is the only nuclear factor of this DNA-binding specificity that is detected in AtT-20 cells, and it is expressed at high levels in a subset of adult anterior pituitary cells that express POMC. However, Ptx1 is expressed in most cells of Rathke's pouch at an early time during pituitary development and before final differentiation of

hormone-producing cells. Thus, Ptx1 may have a role in differentiation of pituitary cells, and its early **expression** pattern suggests that it may have a role in pituitary formation. In the adult pituitary gland, Ptx1 appears to be recruited for cell-specific transcription of the POMC gene.

L4 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:313668 HCAPLUS
DOCUMENT NUMBER: 122:102325
TITLE: Direct targeting of neutral endopeptidase (EC 3.4.24.11) to the apical cell surface of transfected LLC-PK1 cells and unpolarized secretion of its soluble form
AUTHOR(S): **Lanctot, Christian**; Fournier, Helene; Howell, Steven; Boileau, Guy; Crine, Philippe
CORPORATE SOURCE: Faculte de Medecine, Universite de Montreal, Montreal, QC, H3C 3J7, Can.
SOURCE: Biochemical Journal (1995), 305(1), 165-71
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB LLC-PK1 cells were transfected with a cDNA encoding rabbit neutral endopeptidase (NEP; EC 3.4.24.11), an abundant enzyme of the kidney proximal brush border. **Clones** of cells expressing high levels of the protein were isolated. Selective biotinylation and radioimmunolabeling were used to det. that 85-95% of NEP was localized in the apical domain of filter-grown LLC-PK1 cells. Pulse-chase and selective biotinylation studies revealed that the majority (85%) of newly made NEP was directly targeted to the apical membrane. However, a sol. form of NEP was found to be secreted in approx. equal amts. from both sides of the monolayer when expressed in LLC-PK1 cells. Transfected pro-opiomelanocortin, a pituitary hormone precursor, was secreted almost exclusively into the basolateral medium, suggesting that the bulk flow is to the basolateral membrane. This behavior contrasts with that obsd. in MDCK cells, where both the transmembrane and secreted forms of NEP are directly targeted to the apical membrane and where the secretion of pro-opiomelanocortin is unpolarized.

L4 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:403868 HCAPLUS
DOCUMENT NUMBER: 121:3868
TITLE: **Expression** of an enzymically active glycosylphosphatidylinositol-anchored form of neutral endopeptidase (EC 3.4.24.11) in Cos-1 cells
AUTHOR(S): Howell, Steven; **Lanctot, Christian**; Boileau, Guy; Crine, Philippe
CORPORATE SOURCE: Fac. Med., Univ. Montreal, Montreal, QC, H3C 3J7, Can.
SOURCE: Biochemical Journal (1994), 299(1), 171-6
CODEN: BIJOAK; ISSN: 0264-6021
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Neutral endopeptidase (EC 3.4.24.1.11, NEP), is a type-II integral membrane protein found in a wide variety of cell types. The authors previously produced a secreted form of the enzyme by deletion of the cytoplasmic and transmembrane domains and in-frame fusion of the cleavable signal peptide of pro-opiomelanocortin [Lemay, Waksman, Roques, Crine and Boileau (1989) J. Biol. Chem. 264, 15620-15623]. Here the authors have used this secreted form of NEP and fused to it the

glycosylphosphatidylinositol (GPI)-anchor attachment signal of decay-accelerating factor to produce a GPI-anchored form. **Expression** of this chimeric form in Cos-1 cells resulted in cell-surface activity. This activity could be released from the cell surface by phosphatidylinositol-specific phospholipase C and radiolabeling studies showed that the protein could incorporate [3H]ethanolamine, indicating that the enzyme was GPI-anchored. The Km value, using [D-Ala2,Leu5]enkephalin as substrate, of GPI-anchored NEP (62 .mu.M) was comparable with that of wild-type NEP (70 .mu.M), as were the sensitivities to the inhibitors phosphoramidon and thiorphan. However, pulse-chase studies showed that the biosynthesis and cell-surface delivery of GPI-anchored NEP was delayed compared with that of the wild-type transmembrane form of NEP. These results suggest a lower rate of biosynthesis and/or cellular transport for GPI-anchored NEP compared with its transmembrane counterpart.

L4 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:491882 HCAPLUS
DOCUMENT NUMBER: 119:91882
TITLE: Targeting of neutral endopeptidase 24.11 in polarized cells
AUTHOR(S): Crine, Phillippe; Jalal, Fairouze; **Lanctot, Christian**; Corbeil, Denis; Waksman, Gilles; Lemay, Guy; Withers, Keith; Boileau, Guy
CORPORATE SOURCE: Fac. Med., Univ. Montreal, Montreal, QC, H3C 3J7, Can.
SOURCE: Biochemical Society Transactions (1993), 21(3), 668-72
CODEN: BCSTB5; ISSN: 0300-5127
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 31 refs., on: neutral endopeptidase 24.11 (NEP); protein targeting in polarized cells; targeting of NEP in MDCK cells; targeting of NEP in LLC-PK1 cells; and **expression** of truncated forms of NEP.

L4 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1983:616279 HCAPLUS
DOCUMENT NUMBER: 99:216279
TITLE: Derivation of hydroxyl concentration from satellite infrared measurements of nitrogen oxide (NO2) and nitric acid
AUTHOR(S): Pyle, J. A.; Zavody, A. M.; Harries, J. E.; **Moffat, P. H.**
CORPORATE SOURCE: Rutherford Appleton Lab., Chilton/Didcot/Oxon., OX11 0QX, UK
SOURCE: Nature (London, United Kingdom) (1983), 305(5936), 690-2
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Altitude (26-40 km) vs. latitude (60.degree.S to 80.degree.N) plots of equal OH concn. (3 .times. 105 to 3 .times. 107 mol/cm3) are derived for the middle stratosphere from detns. of stratospheric NO2 and HNO3 made during 27 Mar-1 Apr. 1979 by the IR stratospheric limb sounder flown on Nimbus 7. The OH concns. were calcd. from the **expression** [NO2]/[HNO3] = (J3 + k2[OH])/k1[OH][M], on the assumption of equil. between NO2 and HNO3 via the reactions: (1) NO2 + OH + M .fwdarw. HNO3 + M (rate const. = k1), (2) HNO3 + OH .fwdarw. NO3 + H2O (rate const. = k2), and (3) HNO3 + h.nu. .fwdarw. NO2 + OH (rate const. = J3). The calcd. OH values agree well with the limited no. of previous direct measurements; the variation of derived OH with altitude and latitude agrees well with

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L1 5 SEA FILE=HCAPLUS ((SALOIS P?) OR (SALOIS,P?) OR (SALOIS, P?))/AU,IN

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L1 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:783578 HCAPLUS
DOCUMENT NUMBER: 138:118128
TITLE: Engineered viruses to select genes encoding secreted and membrane-bound proteins in mammalian cells
AUTHOR(S): Moffatt, Pierre; **Salois, Patrick**; Gaumond, Marie-Helene; St-Amant, Natalie; Godin, Eric; Lanctot, Christian
CORPORATE SOURCE: 416 de Maisonneuve West, Phenogene Therapeutics, Suite 1020, Montreal, QC, H3A 1L2, Can.
SOURCE: Nucleic Acids Research (2002), 30(19), 4285-4294
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have developed a functional genomics tool to identify the subset of cDNAs encoding secreted and membrane-bound proteins within a library (the 'secretome'). A Sindbis virus replicon was engineered such that the envelope protein precursor no longer enters the secretory pathway. cDNA fragments were fused to the mutant precursor and expression screened for their ability to restore membrane localization of envelope proteins. In this way, recombinant replicons were released within infectious viral particles only if the cDNA fragment they contain encodes a secretory signal. By using engineered viral replicons to selectively export cDNAs of interest in the culture medium, the methodol. reported here efficiently filters genetic information in mammalian cells without the need to select individual clones. This adaptation of the signal trap' strategy is highly sensitive (1/200 000) and efficient. Indeed, of the 2546 inserts that were retrieved after screening various libraries, more than 97% contained a putative signal peptide. These 2473 clones encoded 419 unique cDNAs, of which 77% were previously annotated. Of the 94 cDNAs encoding proteins of unknown function, 24% either had no match in databases or contained a secretory signal that could not be predicted from electronic data.
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:157962 HCAPLUS
DOCUMENT NUMBER: 136:195286
TITLE: Uses of alphavirus genome for screening libraries of exogenous nucleic acids and selecting a nucleic acid having a desired feature
INVENTOR(S): Lanctot, Christian; Moffat, Pierre; **Salois, Patrick**
PATENT ASSIGNEE(S): Phenogene Therapeutiques Inc., Can.
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002016572	A2	20020228	WO 2001-CA1169	20010817
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001087396	A5	20020304	AU 2001-87396	20010817
PRIORITY APPLN. INFO.:			US 2000-641931	A1 20000818
			WO 2001-CA1169	W 20010817

AB This invention relates to the use of a virus or of a viral genome for screening/selecting exogenous nucleic acids having a desired feature. More particularly, the present invention provides a dysfunctional viral genome capable of both expressing libraries of exogenous nucleic acids and selecting the sequences having a predefined characteristic or function within the cell, such as as nucleic acids encoding signal peptides, secreted proteins, membrane bound proteins, proteases, protease cleaving site and drug-resistance proteins. The invention further provides methods and kits for selecting nucleic acids having a desired feature. According to one embodiment, prodn. of a viral particle is dependent on insertion of an exogenous nucleic acid having the desired feature into a dysfunctional viral genome or into a viral genome exposed to a substance inhibiting viral packaging function(s).

L1 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	1998:60889 HCAPLUS
DOCUMENT NUMBER:	128:189060
TITLE:	Characterization and molecular phylogeny of a protein kinase cDNA from the dinoflagellate Gonyaulax (Dinophyceae)
AUTHOR(S):	**Salois, Patrick**; Morse, David
CORPORATE SOURCE:	Department de Biologie, Universite de Montreal, Montreal, QC, H1X 2B2, Can.
SOURCE:	Journal of Phycology (1997), 33(6), 1063-1071 CODEN: JPYLAJ; ISSN: 0022-3646
PUBLISHER:	Phycological Society of America
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Degenerate primers corresponding to conserved protein kinase motifs were used to amplify potential kinase DNA fragments from a Gonyaulax polyedra Stein cDNA library using PCR. One PCR fragment, potentially encoding a cAMP-dependent protein kinase, was used as a probe to isolate a near full-length cDNA from the library. The nucleic acid sequence of the entire cDNA clone had a high homol. to the catalytic subunit of cAMP-dependent protein kinase (cAPK) subfamily and affiliated members. Northern blot anal. showed that the corresponding mRNA had a size (about 1.4 kb) and a relative high abundance consistent with a cAPK homolog. Southern blot anal. showed that while there are roughly 30 copies of the kinase gene per genome, the pattern of restriction fragments is inconsistent with the hypothesis of a large gene family. Phylogenetic analyses comparing the deduced amino acid sequence from the Gonyaulax cDNA with other cAPK sequences place Gonyaulax close to the slime mold Dictyostelium discoideum. This is the first phylogenetic anal. of dinoflagellates based on protein sequence, and the results are in

agreement with similar analyses based on rRNA sequences.

L1 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:187298 HCAPLUS
DOCUMENT NUMBER: 124:252320
TITLE: Do dinoflagellates contain a Cdc2-like protein kinase?
AUTHOR(S): **Salois, Patrick**; Morse, David
CORPORATE SOURCE: Inst. Recherche Biol. Vegetale, Univ. Montreal, Montreal, QC, H1X 2B2, Can.
SOURCE: Molecular Marine Biology and Biotechnology (1996), 5(1), 52-61
CODEN: MMBBEQ; ISSN: 1053-6426
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A protein present in exts. of dinoflagellate Gonyaulax that was capable of binding an antibody directed against the conserved Cdc2 kinase epitope EGVPSTAIREISLLKW was characterized by Western blot anal. and DNA sequencing and shown not to encode a Cdc2 kinase. The amt., size, and isoelec. point of the immunoreactive species were invariant over a 24-h period (encompassing S and M phases), and the DNA sequence of a cDNA isolated by immunol. screening showed that no conserved kinase regions were present in the deduced amino acid sequence. A method based on polymerase chain reaction (PCR), using primers designed from conserved regions in the Cdc2 kinases, was also unsuccessful in isolating a cdc2 gene homolog, although other kinases were identified.

L1 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:632879 HCAPLUS
DOCUMENT NUMBER: 123:221651
TITLE: A nuclear-encoded form II RuBisCO in dinoflagellates
AUTHOR(S): Morse, David; **Salois, Patrick**; Markovic, Paul; Hastings, J. Woodland
CORPORATE SOURCE: Inst. Rech. Biol. Veg., Univ. Montreal, Montreal, QC, H1X 2B2, Can.
SOURCE: Science (Washington, D. C.) (1995), 268(5217), 1622-4
CODEN: SCIEAS; ISSN: 0036-8075
PUBLISHER: American Association for the Advancement of Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The chloroplasts of most dinoflagellates are unusual in theat they are surrounded by three membranes and contain the carotenoid peridinin. The ribulose-1,5-bidphosphate carboxylase-oxygenase (RuBisCO) in dinoflagellate chloroplasts was found here to also be unusual. Unlike other eukaryotes, dinoflagellates contg. peridinin use a form of this RuBisCO is not encoded in the chloroplast DNA, as is the case of other organisms, but is encoded by the nuclear DNA. The unusual nature of this enzyme and location of its gene support the idea that dinoflagellate chloroplasts may have had a distinctive evolutionary origin. The Gonyaulax polyedra ribulose 1,5-bisphosphate carboxylase/oxygenase amino acid sequence is presented.

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FILE 'HCAPLUS' ENTERED AT 12:47:55 ON 26 FEB 2003

FILE COVERS 1907 - 26 Feb 2003 VOL 138 ISS 9
FILE LAST UPDATED: 25 Feb 2003 (20030225/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1 18 SEA FILE=HCAPLUS SIGNAL(W)TRAP?

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L1 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:783578 HCAPLUS
DOCUMENT NUMBER: 138:118128
TITLE: Engineered viruses to select genes encoding secreted and membrane-bound proteins in mammalian cells
AUTHOR(S): Moffatt, Pierre; Salois, Patrick; Gaumond, Marie-Helene; St-Amant, Natalie; Godin, Eric; Lanctot, Christian
CORPORATE SOURCE: 416 de Maisonneuve West, Phenogene Therapeutics, Suite 1020, Montreal, QC, H3A 1L2, Can.
SOURCE: Nucleic Acids Research (2002), 30(19), 4285-4294
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have developed a functional genomics tool to identify the subset of cDNAs encoding secreted and membrane-bound proteins within a library (the 'secretome'). A Sindbis virus replicon was engineered such that the envelope protein precursor no longer enters the secretory pathway. cDNA fragments were fused to the mutant precursor and expression screened for their ability to restore membrane localization of envelope proteins. In this way, recombinant replicons were released within infectious viral particles only if the cDNA fragment they contain encodes a secretory signal. By using engineered viral replicons to selectively export cDNAs of interest in the culture medium, the methodol. reported here efficiently filters genetic information in mammalian cells without the need to select individual clones. This adaptation of the **signal trap** ' strategy is highly sensitive (1/200 000) and efficient. Indeed, of the 2546 inserts that were retrieved after screening various libraries, more than 97% contained a putative signal peptide. These 2473 clones encoded 419 unique cDNAs, of which 77% were previously annotated. Of the 94 cDNAs

encoding proteins of unknown function, 24% either had no match in databases or contained a secretory signal that could not be predicted from electronic data.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:25358 HCAPLUS
DOCUMENT NUMBER: 137:88974
TITLE: In situ hybridization screen in zebrafish for the selection of genes encoding secreted proteins
AUTHOR(S): Crosier, Philip S.; Bardsley, Anne; Horsfield, Julia A.; Krassowska, Anna K.; Lavallie, Edward R.; Collins-Racie, Lisa A.; Postlethwait, John H.; Yan, Yi-Lin; McCoy, John M.; Crosier, Kathryn E.
CORPORATE SOURCE: Division of Molecular Medicine, Faculty of Medical and Health Sciences, University of Auckland, Auckland, N. Z.
SOURCE: Developmental Dynamics (2001), 222(4), 637-644
CODEN: DEDYEI; ISSN: 1058-8388
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An in situ hybridization expression screen using a signal sequence trap system has been conducted in zebrafish to isolate cDNAs that encode secreted proteins. Random clones (secreted expressed sequence tags; sESTs) were sequenced from zebrafish embryonic (18-24 h postfertilization) and adult kidney libraries. From the two RNA sources, 627 random sEST cDNAs were identified as being homologous or identical to known genes and 166 clones encode currently unidentified genes. The sESTs represent a broad range of enzymes and other regulatory mols. Whole-mount in situ hybridization anal. was carried out by using antisense probes generated from 244 selected sESTs, and a range of expression patterns was obtained. Genetic mapping undertaken with sEST sequences demonstrated that assignment of map position was attainable by using 5' primers. The signal sequence trap system used in this work has yielded a range of cDNAs that encode secreted proteins and, together with anal. of patterns of expression and genetic mapping, has the potential to facilitate anal. of signaling pathways central to development and physiol.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:763177 HCAPLUS
DOCUMENT NUMBER: 135:314424
TITLE: Signal sequence trapping from existing gene library using a transposon containing a promoter-less and signal-less secretion reporter
INVENTOR(S): Duffner, Fiona; Wilting, Reinhard; Schnorr, Kirk
PATENT ASSIGNEE(S): Novozymes A/S, Den.
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077315	A1	20011018	WO 2001-DK195	20010322

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1276857	A1	20030122	EP 2001-916937	20010322	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2002076706	A1	20020620	US 2001-823825	20010330	
NO 2002004798	A	20021206	NO 2002-4798	20021004	

PRIORITY APPLN. INFO.:

DK 2000-576	A	20000407
DK 2000-1693	A	20001113
DK 2001-210	A	20010209
US 2000-198264P	P	20000417
US 2000-249237P	P	20001116
US 2001-269168P	P	20010215
WO 2001-DK195	W	20010322

AB A method for isolating genes encoding secreted polypeptides from previously established gene-banks or libraries is described in which the endogenous secretion signal sequences are detected using an in vitro transposition reaction where the transposon contains a secretion reporter. The present invention allows the screening for genes encoding secreted, partially secreted, or cell surface-displayed polypeptides of industrial interest, such as enzymes, receptors, cytokines, peptide hormones etc. that would not likely have been isolated using conventional screening assays. The combination of the use of a promoter-less and secretion signal-less secretion reporter gene and an in vitro polynucleotide insertion reaction for the identification of genes encoding secreted, partially secreted, or cell surface displayed polypeptides from genomic or cDNA libraries previously established is described, e.g. the use of a signal-less .beta.-lactamase gene comprised in a transposon such as the MuA mini-transposon. Use of the constructed transposon SigA2 contg. a signal-less .beta.-lactamase gene in the **signal trapping** of the extracellular pullulanase PULL1012 and xyloglucanase XYG1006 was demonstrated. Use of a transposon which carries the colE1 origin of replication to identify genes coding for secreted proteins in the genome of a host cell was also demonstrated.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:435118 HCAPLUS
DOCUMENT NUMBER: 135:41821
TITLE: Protein and cDNA sequences of novel human secretory protein zsig87
INVENTOR(S): Sheppard, Paul O.
PATENT ASSIGNEE(S): Zymogenetics, Inc., USA
SOURCE: PCT Int. Appl., 107 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042292	A2	20010614	WO 2000-US33539	20001208
WO 2001042292	A3	20020124		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 1999-456641 A 19991208

AB The present invention provides protein and cDNA sequences for a newly identified human secretory protein, designated zsig87. A full length of 456 bp gene sequence of zsig87 is identified by scanning of translated testis, and mast cell library DNA database using a **signal trap** as a query resulted in identification of expressed sequence tag (EST) sequences that were found to be homol. to a human secretory signal sequence. Zsig87 expression in the microarray hybridization data shows that zsig87 is up-regulated in some colon cancer and leukemia cell lines. This data also indicated a down-regulation of zsig87 in a CNS cancer cell lines. However, most colon, leukemia, prostate, CNS, renal, breast, and nonsmall cell lung cancer cell lines generally showed mixed or weak changes in zsig87 expression relative to the control level. Zsig87 expression was highest in the HCT-15, HCC-2998 (colon cancer) cell lines, and the HL-60 and K562 (leukemia) cell lines. Zsig87 expression was lowest in the SF-539 CNS cell line. These results show that a Zsig87 increase or decrease in expression is correlated with certain tissue-specific tumors particularly colon cancer, CNS cancer, or leukemia. As such, detection of zsig87 expression increase or decrease can be used as a diagnostic for human cancers. Moreover, detection of zsig87 expression increase or decrease may be used as a diagnostic for other human cancers in which differential expression may be evident, such as breast, non-small cell lung, prostate, renal, and ovarian cancers.

L1 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:101298 HCAPLUS
DOCUMENT NUMBER: 134:158476
TITLE: 5'-enriched cDNA libraries and a yeast **signal trap** vector
INVENTOR(S): Kretschmer, Peter J.; Luke, May M.; Van Heuit, Pamela Toy; Xu, Yifan
PATENT ASSIGNEE(S): Berlex Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009310	A1	20010208	WO 2000-US20541	20000728

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 1999-145974P P 19990729

US 2000-628178 A 20000728

AB A method is disclosed for generating cDNA libraries which are enhanced for 5' sequences. First strand cDNA synthesis is initiated with oligonucleotide primers which comprise, 5' to 3': (1) a defined sequence which can be used as a PCR primer and, optionally, which contains at least a portion or one or more restriction enzyme site(s), and (2) a random oligonucleotide sequence. The cDNAs which have copied their mRNA templates substantially to the 5' ends are preferentially selected, optionally amplified by PCR, and cloned directionally into a vector. A novel yeast cloning vector is described which allows for the selection of cDNAs that encode signal sequences.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:819411 HCAPLUS
DOCUMENT NUMBER: 134:1322
TITLE: Methods for identifying novel secreted mammalian proteins by signal sequence trapping using FGFs as reporter polypeptides
INVENTOR(S): Zhang, Ke; Pacifici, Robert
PATENT ASSIGNEE(S): Amgen Inc., USA
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6150098	A	20001121	US 1998-26958	19980220

PRIORITY APPLN. INFO.: US 1998-26958 19980220

AB Methods for identifying novel secreted mammalian proteins in mammalian host cells are described and termed "signal sequence trapping". The method includes constructing a cDNA library in a **signal trap** vector for transfection into a mammalian host cell and detecting secretion of a reporter polypeptide. Reporter polypeptides which allow detection of signal sequences by growth selection or by enzymic activity are also described. The reporter polypeptides include mammalian growth factors which stimulate cell proliferation by an autocrine mechanism. In one embodiment, the growth factor are secreted members of the fibroblast growth factor (FGF) family.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:562531 HCAPLUS
DOCUMENT NUMBER: 133:145912
TITLE: Methods and compositions for identifying novel secretory mammalian proteins in yeast
INVENTOR(S): Thukral, Sushil K.
PATENT ASSIGNEE(S): Amgen Inc., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 6103472	A	20000815	US 1998-26959	19980220

PRIORITY APPLN. INFO.: US 1998-26959 19980220

AB The invention provides a method for trapping signal sequence DNA from cDNA library in a **signal trap** vector for transformation into a yeast host cell and detecting secretion of a reporter protein. Reporter protein which allow detection of signal sequences by growth selection are also described.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:475788 HCAPLUS

DOCUMENT NUMBER: 133:103739

TITLE: Soluble receptor BR43x2 isoform of transmembrane activator and CAML-interactor TACI and related proteins and their use in modulating the immune response and treating autoimmune disorders

INVENTOR(S): Gross, Jane A.; Xu, Wenfeng; Madden, Karen; Yee, David P.

PATENT ASSIGNEE(S): Zymogenetics, Inc., USA

SOURCE: PCT Int. Appl., 175 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040716	A2	20000713	WO 2000-US396	20000107
WO 2000040716	A3	20000921		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2358520	AA	20000713	CA 2000-2358520	20000107
EP 1141274	A2	20011010	EP 2000-902354	20000107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000007423	A	20020122	BR 2000-7423	20000107
NO 2001003316	A	20010906	NO 2001-3316	20010704

PRIORITY APPLN. INFO.: US 1999-226533 A 19990107
WO 2000-US396 W 20000107

AB Sol., secreted tumor necrosis factor receptor polypeptides, polynucleotides encoding the polypeptides, and related compns. and methods are disclosed. Specifically, the polypeptides comprise one cysteine-rich repeat that is homologous to other tumor necrosis factor receptors, such as an isoform of transmembrane activator and CAML-interactor (TACI) which is designated BR43x2, and a related B cell protein (BCMA). These polypeptides bind the the TNF ligand, ztnf4 (also known as neutrokine .alpha.). BR43x2 was initially identified by **signal trap** cloning using a human RPMI 1788 library and the N- or C-terminally FLAG-tagged, biotin- or FITC-labeled tumor necrosis factor ligand ztnf4. Northern blot and dot blot anal. of the tissue distribution of the mRNA using probes corresponding to overlapping regions of TACI and

BR43x2 detected the proteins in spleen, lymph node and small intestine, stomach, salivary gland, appendix, lung, bone marrow, fetal spleen, CD19-pos. cells, and Raji cells. The polypeptides may be used for detecting ligands, agonists and antagonists. The polypeptides may also be used in methods that modulate B cell activation and treat autoimmune disorders.

=> d ibib abs hitrn l1 9-18

L1 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:421305 HCAPLUS
DOCUMENT NUMBER: 133:54553
TITLE: Identification of a novel secreted pancreatic protein zsig66
INVENTOR(S): Sheppard, Paul O.
PATENT ASSIGNEE(S): Zymogenetics, Inc., USA
SOURCE: PCT Int. Appl., 109 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036104	A1	20000622	WO 1999-US29669	19991214
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1141287	A1	20011010	EP 1999-966234	19991214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002532091	T2	20021002	JP 2000-588353	19991214

PRIORITY APPLN. INFO.: US 1998-212947 A 19981216
WO 1999-US29669 W 19991214

AB A novel secreted pancreatic protein, zsig66, is identified by searching the EST (expressed sequence tag) database for homologous sequence of human secretory signal sequence using **signal trap** method. Four amino acid motifs: M1 (between residues of 36-41 of zsig66 protein), M2 (45-50), M3 (56-61) and M4 (68-73), are described. The gene for zsig66 has been mapped to chromosome 4q28-q31 region. Methods of analyzing zsig66 mRNA tissue distribution, generating antibody to various antigenic peptide, screening for zsig66 modulators as therapeutic drugs for diseases assocd. zsig66 gene are provided.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:229483 HCAPLUS
DOCUMENT NUMBER: 133:330079
TITLE: Nuclear protein transport mechanism and discovery of nuclear localizing signals
AUTHOR(S): Muramatsu, Masaaki
CORPORATE SOURCE: Helix Research Institute, Japan

SOURCE: Bio Industry (2000), 17(4), 32-36
CODEN: BIINEG; ISSN: 0910-6545
PUBLISHER: Shi Emu Shi
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 7 refs. on the nuclear transportation trap (NTT) method developed by the author for specifying the nuclear transport proteins by cloning based on the recent findings on nuclear import and export mechanism. The importance of developing functional genomics techniques in addn. to structural genomics in human genome research is discussed.

L1 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:188168 HCAPLUS
DOCUMENT NUMBER: 131:28409
TITLE: A new signal sequence trap using alkaline phosphatase as a reporter
AUTHOR(S): Chen, Hsiuchen; Leder, Philip
CORPORATE SOURCE: Department of Genetics, Howard Hughes Medical Institute, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Nucleic Acids Research (1999), 27(4), 1219-1222
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Secreted and transmembrane proteins are crit. to the cell-cell interactions governing normal development and carcinogenesis. To facilitate the identification of such mols., we have developed a novel signal sequence trap that uses human placental alk. phosphatase as a reporter. Libraries from mouse prostate and human prostatic carcinoma were constructed to test the PST (peptide **signal trap**) system, resulting in the identification of several secreted and transmembrane proteins.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:734641 HCAPLUS
DOCUMENT NUMBER: 130:45834
TITLE: Positron-lifetime study of compensation defects in undoped semi-insulating InP
AUTHOR(S): Beling, C. D.; Deng, A. H.; Shan, Y. Y.; Zhao, Y. W.; Fung, S.; Sun, N. F.; Sun, T. N.; Chen, X. D.
CORPORATE SOURCE: Department of Physics, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Physical Review B: Condensed Matter and Materials Physics (1998), 58(20), 13648-13653
CODEN: PRBMDO; ISSN: 0163-1829
PUBLISHER: American Physical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Positron-lifetime and IR-absorption spectroscopies have been used to investigate the compensation defects that render undoped n-type liq.-encapsulated Czochralski-grown InP semi-insulating under high-temp. annealing. The positron measurements, carried out over the temp. range of 25-300 K, reveal in the as-grown material a positron lifetime of 282 .+-. 5 ps which the authors assoc. with either the isolated indium vacancy VIn3- or related hydrogen complexes. The shallow donor complex VInH4, responsible for much of the n-type cond. and the strong IR absorption signal at 4320 nm, is ruled out as a significant trapping site on the grounds that its neutral state is present at too low a concn. After

annealing at 950.degree., in conjunction with the disappearance of the VInH4 IR-absorption **signal, trapping** into VIn-related centers is obsd. to increase slightly, and an addnl. positron trapping defect having a lifetime of 330 ps appears at a concn. of .apprx.1016 cm-3, indicating divacancy trapping. These results support the recent suggestion that the VInH4 complex present in as-grown InP dissocs. during annealing, forming VInHn(3-n)-(0 .ltoreq. n .ltoreq. 3) complexes and that the recombination of VIn with a phosphorus atom results in the formation of EL2-like deep donor PIn antisite defect, which compensates the material. It is suggested that the divacancy formed on annealing is VInVP, and that this defect is probably a byproduct of the PIn antisite formation.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:697601 HCAPLUS
TITLE: Inharmonic overtone spurious mode suppression by partial mass-loading onto the electrode for energy-trapped-type thickness-extensional-mode piezoelectric ceramic resonators
AUTHOR(S): Yamashita, Yoshinari; Oikawa, Yasunobu; Sugimoto, Masanobu
CORPORATE SOURCE: TDK Applied Products Development Center Ichikawa, Chiba, 272-8558, Japan
SOURCE: Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (1998), 37(9B), 5318-5321
CODEN: JAPNDE; ISSN: 0021-4922
PUBLISHER: Japanese Journal of Applied Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Exptl. studies have been performed on the suppression of the inharmonic overtone responses for realizing piezoelec. ceramic resonators with low resonance impedance compatible with a wide-area electrode(>.vphi. 15.lambda.). The circumferential mass-loading onto the electrode is effective for the fabrication of an oscillator with a low oscillation startup voltage, without any jump to spurious frequencies. In addn., this technique results in a wide rejection bandwidth for TV/VCR adjacent-channel sound-carrier-**signal traps**. This effect (stepped energy-trapping) is obsd. to arise from the spatial vibration energy distribution dispersion by the additive weighting electrode using optical laser interferometry and finite-element-method anal.

L1 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:36412 HCAPLUS
DOCUMENT NUMBER: 128:71252
TITLE: Development of a nuclear export **signal trapping** method for isolating genes with HIV Rev activity
AUTHOR(S): Zhang, Ming Jie; Dayton, Andrew I.
CORPORATE SOURCE: Lab. Molecular Virology, Div. Transfusion-Transmitted Diseases, Center Biologics Evaluation Res., Food Drug Administration, Rockville, MD, 20852, USA
SOURCE: Journal of Biomedical Science (Basel) (1997), 4(6), 289-294
CODEN: JBCIEA; ISSN: 1021-7770
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have developed a method for nuclear export **signal trapping** (NEST) to isolate functional Rev clones from various types of libraries such as libraries of Rev mutants. The expression libraries are cotransfected into COS cells together with a novel Rev-dependent immunoselectable CD28 expression plasmid, pCMV128-CD28. CD28-pos. cells are recovered by fluorescence-activated cell sorting or by immune pptn. with magnetic beads, and the low-mol.-wt. extra chromosomal DNA is recovered, amplified for Rev-contg. DNA by PCR and recloned into expression plasmids. The resulting clones are enriched for functional Rev clones. These can be recovered efficiently after several repetitive NEST cycles. This technique may be usefully applied to study various regions of Rev, such as the RNA binding domain and the nuclear export signal, or effector domain and potentially to the isolation of cellular factors with nuclear export capabilities.

L1 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:402043 HCAPLUS
DOCUMENT NUMBER: 121:2043
TITLE: Signal sequence trap - A cloning strategy for secreted proteins and type I transmembrane proteins
AUTHOR(S): Tashiro, Kei; Tada, Hideaki; Honjo, Tasuku
CORPORATE SOURCE: Fac. Med., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Jikken Igaku (1994), 12(7), 873-8
CODEN: JIIGEF; ISSN: 0288-5514
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 1 refs. on the principle and protocol of signal sequence trap method.

L1 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1986:43960 HCAPLUS
DOCUMENT NUMBER: 104:43960
TITLE: Small-**signal trap** filling experiment with a acoustoelectric transient method
AUTHOR(S): Koepp, S.
CORPORATE SOURCE: Zentralinst. Elektronenphys., Akad. Wiss., Berlin, DDR-1199, Ger. Dem. Rep.
SOURCE: Physik der Halbleiteroberflaeche (1985), 16, 101-9
CODEN: PHHADG; ISSN: 0138-192X
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The traps in the Si-SiO2 interface were studied by the acoustoelec. transient method by using LiNbO3 as the acoustoelec. probe. The results are discussed in terms of the Read-Shockley model. The method appears to be as good as the deep-level transient spectroscopy method.

L1 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:49690 HCAPLUS
DOCUMENT NUMBER: 78:49690
TITLE: Calculated small signal characteristics for irradiated pn junctions
AUTHOR(S): Gwyn, C. W.
CORPORATE SOURCE: Sandia Lab., Albuquerque, NM, USA
SOURCE: IEEE Transactions on Nuclear Science (1972), 19(6), 355-61
CODEN: IETNAE; ISSN: 0018-9499
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Numerical calcns. were used to study small-**signal trapping** effects in neutron-irradiated p-n junctions as a function of frequency. Good agreement was obtained between the calcns. and exptl.

data in n-type Si using 2 acceptor centers to model the trapping center produced by neutron irradn. A single-level donor center was used for p-type material. These calcns. indicate that complex changes in the carrier distributions within the device can be responsible for a rather simple change in the terminal capacitance and conductance. The calcns. suggest that another deep acceptor level (consisting of .apprx.10% of the total trap d.) may be present in n-type material, which provides a more gradual change in the terminal capacitance with frequency than that noted using the 2 acceptor centers.

L1 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:23017 HCAPLUS
DOCUMENT NUMBER: 78:23017
TITLE: Carrier trapping effects in irradiated P-N junctions
AUTHOR(S): Gwyn, C. W.
CORPORATE SOURCE: Sandia Lab., Albuquerque, NM, USA
SOURCE: Report (1972), SC-DC-721237, 25 pp. Avail.: Dep. NTIS
From: Nucl. Sci. Abstr. 1972, 26(19), 45664
DOCUMENT TYPE: Report
LANGUAGE: English
AB Numerical calcns. were used to study small **signal trapping** effects in n irradiated pn junctions as a function of frequency. Good agreement was obtained between the calcns. and exptl. data in n-type Si using 2 acceptor centers to model the trapping centers produced by n irradn. A single level donor center was used for p-type material. These calcns. indicate that complex changes in the carrier distributions within the device can be responsible for a rather simple variation in the terminal characteristics of the device. Although good agreement was obtained between the calcd. and exptl. results, the calcns. suggest that another deep acceptor level (consisting of .apprx.10% of the total trap d.) may be present in n-type material which provides a more gradual change in the terminal capacitance with frequency than that noted by using the 2 acceptor centers.

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show files
File 155:MEDLINE(R) 1966-2003/Feb W4
         (c) format only 2003 The Dialog Corp.
File   5:Biosis Previews(R) 1969-2003/Feb W4
         (c) 2003 BIOSIS
File  34:SciSearch(R) Cited Ref Sci 1990-2003/Feb W3
         (c) 2003 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2003/Jan
         (c) 2003 ProQuest Info&Learning
File  50:CAB Abstracts 1972-2003/Jan
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File  94:JICST-EPlus 1985-2003/Feb W4
         (c)2003 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2003/Feb W3
         (c) 2003 INIST/CNRS
File 340:CLAIMS(R)/US Patent 1950-03/Feb 25
         (c) 2003 IFI/CLAIMS(R)
File 342:Derwent Patents Citation Indx 1978-01/200252
         (c) 2003 Thomson Derwent
File 345:Inpadoc/Fam.& Legal Stat 1968-2003/UD=200307
         (c) 2003 EPO
File 351:Derwent WPI 1963-2003/UD,UM &UP=200313
         (c) 2003  Thomson Derwent
File 357:Derwent Biotech Res. _1982-2003/Feb W4
         (c) 2003 Thomson Derwent & ISI
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         (c) 1998 Inst for Sci Info
File 440:Current Contents Search(R) 1990-2003/Feb 26
         (c) 2003 Inst for Sci Info
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Set     Items   Description
S1        187   SIGNAL?(W)TRAP?
S2        158   RD (unique items)
S3         19   S2 AND (EXPRESS? OR PKG OR PACKAG? OR CLON?)
?t3/3 ab/1-19
>>>No matching display code(s) found in file(s): 342, 345

 3/AB/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2003 The Dialog Corp. All rts. reserv.

14173982   22251162   PMID: 12364608
  Engineered viruses to select genes encoding secreted and membrane-bound
proteins in mammalian cells.
  Moffatt Pierre; Salois Patrick; Gaumond Marie-Helene; St-Amant Natalie;
Godin Eric; Lanctot Christian; et al
  Phenogene Therapeutics, 416 de Maisonneuve West, Suite 1020, Montreal,
Quebec H3A 1L2, Canada.
  Nucleic acids research (England)  Oct 1 2002,  30  (19)  p4285-94,
ISSN 1362-4962  Journal Code: 0411011
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: Completed
  We have developed a functional genomics tool to identify the subset of
cDNAs encoding secreted and membrane-bound proteins within a library (the
'secretome'). A Sindbis virus replicon was engineered such that the
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envelope protein precursor no longer enters the secretory pathway. cDNA fragments were fused to the mutant precursor and expression screened for their ability to restore membrane localization of envelope proteins. In this way, recombinant replicons were released within infectious viral particles only if the cDNA fragment they contain encodes a secretory signal. By using engineered viral replicons to selectively export cDNAs of interest in the culture medium, the methodology reported here efficiently filters genetic information in mammalian cells without the need to select individual clones . This adaptation of the ' signal trap ' strategy is highly sensitive (1/200 000) and efficient. Indeed, of the 2546 inserts that were retrieved after screening various libraries, more than 97% contained a putative signal peptide. These 2473 clones encoded 419 unique cDNAs, of which 77% were previously annotated. Of the 94 cDNAs encoding proteins of unknown function, 24% either had no match in databases or contained a secretory signal that could not be predicted from electronic data.

3/AB/2 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12779699 BIOSIS NO.: 200000533322
Keeping pace with technology: Two decades of cloning hematopoietic growth factors.
AUTHOR: Souza Lawrence; Boone Thomas; Bosselman Bob; Boyle William
JOURNAL: Acta Haematologica (Basel) 103 (Supplement 1):p94 July, 2000
MEDIUM: print
CONFERENCE/MEETING: 13th Symposium on Molecular Biology of Hematopoiesis and Treatment of Leukemia and Cancer New York, NY, USA July 14-18, 2000
ISSN: 0001-5792
RECORD TYPE: Citation
LANGUAGE: English
SUMMARY LANGUAGE: English
2000

3/AB/3 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11311728 BIOSIS NO.: 199800093060
Development of a nuclear export signal trapping method for isolating genes with HIV Rev activity.
AUTHOR: Zhang Ming Jie; Dayton Andrew I(a)
AUTHOR ADDRESS: (a)HFM 315, CBER/FDA, 1401 Rockville Pike, Rockville, MD 20852-1448**USA
JOURNAL: Journal of Biomedical Science 4 (6):p289-294 Nov.-Dec., 1997
ISSN: 1021-7770
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We have developed a method for nuclear export signal trapping (NEST) to isolate functional Rev clones from various types of libraries such as libraries of Rev mutants. The expression libraries are cotransfected into COS cells together with a novel Rev-dependent immunoselectable CD28 expression plasmid, pCMV128-CD28. CD28-positive cells are recovered by FACS or by immune precipitation with magnetic beads, and the low-molecular-weight extra chromosomal DNA is recovered, amplified for Rev-containing DNA by PCR and recloned into expression plasmids. The resulting clones are enriched for functional Rev clones

. These can be recovered efficiently after several repetitive NEST cycles. This technique may be usefully applied to study various regions of Rev, such as the RNA binding domain and the nuclear export signal, or effector domain and potentially to the isolation of cellular factors with nuclear export capabilities.

1997

3/AB/4 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11288262 BIOSIS NO.: 199800069594
Cytokine gene hunting with novel signal peptide specific expression cloning methods: cDNA and genomic signal trapping .
AUTHOR: Peterfy Miklos; Gyuris Tibor; Takacs Laszlo
AUTHOR ADDRESS: Dep. Biomed. Sci., Amgen Inc., Thousand Oaks, CA**USA
JOURNAL: Cytokine 9 (11):p961 Nov., 1997
CONFERENCE/MEETING: Fifth Annual Conference of the International Cytokine Society Lake Tahoe, Nevada, USA November 9-13, 1997
SPONSOR: International Cytokine Society
ISSN: 1043-4666
RECORD TYPE: Citation
LANGUAGE: English
1997

3/AB/5 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

12824798 PASCAL No.: 97-0041618
Magnetic loss in MnZn ferrite under trapezoidal 1 MHz voltage supply
KACZMAREK R; BOUGUILA L; SADARNAC D
91 192 Gif-Sur-Yvette, France
SMM 12 : Soft Magnetic Materials Conference, 12 (Cracow) 1995-09-14
Journal: Journal of magnetism and magnetic materials, 1996, 160 49-50
Language: English Summary Language: English
 Unlike the sinusoidal loss, the trapezoidal iron losses are not sufficiently described by induction and frequency, the cycle ratios are also necessary. Hence the accessible sinusoidal catalogues as well as the sinusoidal power supplies are irrelevant for characterising such wave forms. We propose for them specific laws expressing a relationship between the iron loss and the converter design.

3/AB/6 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal

12446187 PASCAL No.: 96-0103440
Magnetic diffusion of periodic trapezoidal pulses
VASSILIU M
Polytehnica univ. Bucharest, Romania
Journal: Revue roumaine des sciences techniques. Electrotechnique et energetique, 1995, 40 (1) 31-42
Language: English
Magnetic diffusion of a periodic sequence of trapezoidal pulses is

analyzed assuming a half-space model. The time-periodic magnetic field is given as a two terms expression , one of which describes the transient diffusion of a single trapezoidal pulse. Compared with the classical Fourier analysis of non-sinusoidal waveforms this approach gives accurate results with a minimum of computational effort.

3/AB/7 (Item 3 from file: 144)
DIALOG(R)File 144:Pascal

12426859 PASCAL No.: 96-0082050
Winding losses in a planar coil carrying a trapezoidal current
MORARU A; VASILIU M
Politehnica univ., Bucharest, Romania
Journal: Revue roumaine des sciences techniques. Electrotechnique et energetique, 1994, 39 (2) 179-188
Language: English
Time-periodic non-sinusoidal solutions of the magnetic diffusion equation can be expressed either in the form of time-harmonic series or as eigenfunction expansions. Based on the latter expansions, winding losses in a planar coil carrying a trapezoidal current are evaluated. Optimum values of the conductors width for minimum losses are included.

3/AB/8 (Item 4 from file: 144)
DIALOG(R)File 144:Pascal

01844429 PASCAL No.: 78-0361015
EN RUSSE.
(CALCUL DU SIGNAL DE SORTIE D'UN PHOTOTRANSISTOR EN REGIME D'ACCUMULATION DE LA CHARGE)
VORONOV YU A; MOCHALKINA O R; NIKOLAEV E V
Journal: RADIOTEKH. I ELEKTRON., 1978, 23 (2) 417-423
Language: RUSSIAN
CALCUL DU SIGNAL DE SORTIE D'UN PHOTOTRANSISTOR "INTERROGE" PAR UNE IMPULSION DE FORME TRAPEZOIDALE. OBTENTION D' EXPRESSIONS ANALYTIQUES TRADUISANT LA VARIATION DE LA FORME ET DE L'AMPLITUDE DU SIGNAL DE SORTIE ET DU SIGNAL DE BRUIT AVEC LES PARAMETRES DU PHOTOTRANSISTOR ET LE PHOTOCOURANT.

3/AB/9 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

014284869
WPI Acc No: 2002-105570/200214
XRAM Acc No: C02-032359
XRPX Acc No: N02-078526
New zsig87 polynucleotides and encoded polypeptides, useful for, e.g., studying pancreatic cell proliferation or differentiation, mammalian cellular metabolism, promoting wound healing, or treating cancers
Patent Assignee: SHEPPARD P O (SHEP-I)
Inventor: SHEPPARD P O
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010044134	A1	20011122	US 99169597	P	19991208	200214 B
			US 2000733523	A	20001208	

Priority Applications (No Type Date): US 99169597 P 19991208; US 2000733523 A 20001208
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 20010044134 A1 36 C12Q-001/68 Provisional application US 99169597
Abstract (Basic): US 20010044134 A1

Abstract (Basic):

NOVELTY - A polypeptide comprising a sequence of amino acid residues that is at least 90% to a sequence comprising amino acids 27 (R)-56 (C) (AA1), amino acids 16 (E)-84 (P) (AA2), or amino acids 1(M)-84(P) (AA3) of a specified 84 amino acid sequence (I) (not defined in the specification), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an expression vector comprising the following operably linked elements: a transcription promoter, a DNA segment encoding AA1 comprising amino acids 16-84, and a transcription terminator;

(2) a cultured cell into which has been introduced an expression vector of (1) and which expresses the polypeptide encoded by the DNA segment;

(3) a DNA construct comprising a first segment encoding AA1, AA2 or AA3, and at least one other DNA segment encoding an additional polypeptide, where the DNA segments are connected in-frame and encode a fusion protein;

(4) a fusion protein produced by culturing a host cell into which has been introduced a vector comprising the operably linked elements transcriptional promoter, a DNA construct of (3) and a transcriptional terminator;

(5) an isolated polynucleotide encoding a polypeptide comprising a amino acid sequence that is at least 90% identical to AA1, AA2 or AA3;

(6) a method of producing a polypeptide by culturing a host cell of (2) and isolating the polypeptide produced by the cell;

(7) a method of producing an antibody to a polypeptide by inoculating an animal with a polypeptide selected from a polypeptide of (5), AA1, AA2, a polypeptide comprising amino acids 57-84, 39-45, 41-47, 68-73, 77-82 and 68-82 of (I), where the polypeptide elicits an immune response in the animal to produce the antibody, and isolating the antibody from the animal;

(8) an antibody produced from the method of (7), or which specifically binds to the polypeptide of (5); and

(9) methods for detecting a genetic abnormality or cancer in a patient.

ACTIVITY - Cytostatic; antidiabetic; anti-inflammatory; antiasthmatic; antiarthritic; vulnerary; antibacterial; fungicide; virucide.

No supporting data available.

MECHANISM OF ACTION - Gene therapy; hormone; growth factor.

No supporting data available.

USE - Zsig87 polypeptides comprise novel hormones and growth factors that are useful in studying pancreatic cell proliferation or differentiation, insulin, or mammalian cellular metabolism; for promoting wound healing; for treating ovarian, testicular, pancreatic, ocular, immune, lymphatic or blood disorders; in identifying inhibitors or agonists of polypeptide activity; for enhancing fertilization during assisted reproduction in humans and animals; as germ-cell specific antigen; in preparing antibodies that bind zsig87 epitopes, peptides or polypeptides; and for treating diabetes and pancreatic cancer. Zsig87 polypeptides, agonists or antagonists can be used for antimicrobial applications; as cell culture reagents in in vitro studies of exogenous microorganism infection, such as bacterial, viral or fungal infection n; to modulate sperm capacitation; to treat disorders associated with, e.g., gonadal development, pregnancy, pubertal changes, menopause,

ovarian cancer, fertility, ovarian function, polycystic ovarian syndrome, male sexual disorder, testicular or stomach cancer; and in inflammatory diseases such as asthma and arthritis (all disclosed).

The Zsig87 polynucleotide can be used in a method to detect cancer (claimed). Zsig87 87 polynucleotides can be used as probes or primers to clone 5' non-coding regions of a zsig87 gene, to identify cells, tissues or cell lines which respond to a zsig87-stimulated pathway, and in gene therapy.

pp; 36 DwgNo 0/0

3/AB/10 (Item 2 from file: 351)
DIALOG(R)File 351:Derwent WPI

014190209
WPI Acc No: 2002-010906/200201
XRAM Acc No: C02-002730

Identifying and isolating a gene encoding secreted polypeptide from gene library by detecting endogenous secretion signal sequences using in vitro transposition reaction in which transposon contains secretion receptor

Patent Assignee: NOVOZYMES AS (NOVO)
Inventor: DUFFNER F; SCHNORR K; WILTING R
Number of Countries: 095 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200177315	A1	20011018	WO 2001DK195	A	20010322	200201 B
AU 200144091	A	20011023	AU 200144091	A	20010322	200213
US 20020076706	A1	20020620	US 2000198264	P	20000417	200244
			US 2000249237	P	20001116	
			US 2001269168	P	20010215	
			US 2001823825	A	20010330	
NO 200204798	A	20021206	WO 2001DK195	A	20010322	200305
			NO 20024798	A	20021004	
EP 1276857	A1	20030122	EP 2001916937	A	20010322	200308
			WO 2001DK195	A	20010322	

Priority Applications (No Type Date): DK 2001210 A 20010209; DK 2000576 A 20000407; DK 20001693 A 20001113
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200177315	A1	E	48	C12N-015/10	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200144091	A		C12N-015/10	Based on patent WO 200177315
US 20020076706	A1		C12Q-001/68	Provisional application US 2000198264
				Provisional application US 2000249237
				Provisional application US 2001269168
NO 200204798	A		C12N-000/00	
EP 1276857	A1	E	C12N-015/10	Based on patent WO 200177315

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200177315 A1
Abstract (Basic):

NOVELTY - Identifying and isolating (M1) gene of interest (I) encoding secreted/partially secreted polypeptide carrying a signal sequence, from a gene library (L), involves inserting promoterless and

secretion signal-less DNA fragment encoding secretion reporter (R) into (L), introducing (L) into host cell, screening for and selecting host secreting (R), identifying (I) into which (R) was inserted and isolating (I).

DETAILED DESCRIPTION - M1 involves providing a genomic DNA library or a cDNA library, inserting into the library a DNA fragment comprising a promoterless and secretion signal-less polynucleotide encoding a secretion reporter, introducing the library comprising the inserted DNA fragment into a host cell, screening for and selecting a host cell that secretes or partially secretes the active secretion reporter, identifying the gene of interest into which the secretion reporter was inserted in the selected host cell, by sequencing the DNA flanking the inserted DNA fragment, and isolating the complete gene of interest.

INDEPENDENT CLAIMS are also included for the following:

(1) a gene of interest (I) isolated by M1, preferably isolated from a gene library;

(2) an enzyme (II) encoded by (I);

(3) an expression system (III) comprising (I);

(4) a host cell (IV) comprising (III); and

(5) a process (M2) for producing a polypeptide involves cultivating (IV) under conditions suitable for expressing (I), where (IV) secretes a polypeptide encoded by (I) into the growth medium.

USE - M1 is useful for identifying and isolating a gene of interest that encodes a polypeptide carrying a signal sequence for secretion of partial secretion, from a gene library (claimed). M1 is useful for cloning of secreted allergens for immune therapy, and for cloning cell wall attached proteins that are of huge commercial interest.

ADVANTAGE - M1 enables screening for polypeptides of potential industrial interest that would not likely have been isolated using conventional screening assays.

pp; 48 DwgNo 0/1

3/AB/11 (Item 3 from file: 351)
DIALOG(R)File 351:Derwent WPI

013897426
WPI Acc No: 2001-381639/200140
XRAM Acc No: C01-116927
Novel secreted protein, zsig87 polypeptides and polynucleotides for detecting human chromosomal abnormalities, as immunocontraceptives and for diagnosing, treating cancer, cardiovascular and inflammatory diseases
Patent Assignee: ZYMOGENETICS INC (ZYMO)
Inventor: SHEPPARD P O
Number of Countries: 092 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200142292	A2	20010614	WO 2000US33539	A	20001208	200140	B
AU 200120847	A	20010618	AU 200120847	A	20001208	200161	

Priority Applications (No Type Date): US 99456641 A 19991208
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200142292	A2	E	107	C07K-014/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200120847	A		C07K-014/00	Based on patent WO 200142292

Abstract (Basic): WO 200142292 A2
Abstract (Basic):

NOVELTY - An isolated secreted polypeptide zsig87 comprising a sequence of amino acid residues that is 90% identical to a sequence (S1) of 84 amino acids or amino acid residues 27-56 or 16-84 of (S1) fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide (I) that encodes zsig87 polypeptide;

(2) a DNA construct (II) encoding a fusion protein, comprising a first DNA segment encoding a zsig87 polypeptide comprising residues 1-15, 27-84 or 16-84 of (S1), and another DNA segment encoding an additional polypeptide, where the DNA segments are connected in-frame and encode the fusion protein;

(3) an expression vector (III) comprising operably linked elements, transcription promoter, a DNA segment encoding a polypeptide comprising residues 16-84 of (S1) and a transcription terminator;

(4) a cultured cell (IV) comprising (III), expressing a polypeptide encoded by the DNA segment in (III);

(5) a fusion protein produced by culturing a host cell comprising (II);

(6) producing zsig87 polypeptide;

(7) an antibody (V) produced using zsig87 polypeptide, which specifically binds to zsig87 polypeptide;

(8) detecting genetic abnormality in a patient, by obtaining a genetic sample from a patient, producing a reaction product by incubating the genetic sample with a polynucleotide comprising 14 contiguous nucleotides of a sequence (S2) of 456 base pairs (bp) fully defined in the specification or its complement under conditions where the polynucleotide hybridizes to a complementary polynucleotide sequence, visualizing the reaction product and comparing with a control reaction product from a wild-type patient, where a difference between the reaction products is indicative of a genetic abnormality in the patient; and

(9) detecting cancer in a patient, by obtaining a tissue or biological sample from a patient, labeling a polynucleotide comprising 14 contiguous sequence of (S2) or its complement, incubating the tissue or biological sample under conditions, where the polynucleotide hybridizes to complementary polynucleotide sequence, visualizing the labeled polynucleotide in the tissue or biological sample and comparing the levels of labeled polynucleotide in the sample from the patient to a normal control sample, where an increase or decrease in the level of labeled polynucleotide hybridization to the patient tissue or biological sample relative to the normal control tissue or biological sample is indicative of cancer in the patient.

ACTIVITY - Cytostatic; Antiarthritic; Antiasthmatic; Antiinflammatory; Antidiabetic; Vasotropic; Gynecological; Vulnerary; Gastrointestinal- gen; No supporting data is given.

MECHANISM OF ACTION - Gene therapy; zsig87 polypeptide modulator.

USE - Zsig87 polypeptides are useful for producing antibodies, which are useful for detecting cancer in a patient (claimed). Zsig87 is useful for identifying modulators of its activity, which are useful for treating cardiovascular diseases, infertility, in vitro fertilization, birth control, treating impotence or other male reproductive dysfunctions. Zsig87 polypeptides are useful for promoting wound healing for e.g. in the pancreas, for anti-microbial applications and for diagnosing, preventing and treating ovarian, testicular, pancreatic, ocular, immune, lymphatic, bone or blood disorders, uterine, stomach cancer and disorders associated with gastrointestinal mobility and dysfunction, as components in immunocontraceptive or anti-fertility vaccines and for modulating spermatogenesis and sperm

capacitation. Zsig87 polypeptides and its modulators are useful for treating diabetes, pancreatic cancer and inflammatory diseases, such as asthma and arthritis. Zsig87 polynucleotide sequences are useful as probes or primers to clone 5' non-coding regions of zsig87 gene and for detecting human chromosomal abnormalities and as diagnostics in forensic DNA profiling. Zsig87 polypeptides are also useful for preparing antibodies that can be used for tagging and sorting cells that specifically express zsig87. Antibodies to zsig87 are useful for isolating zsig87 by affinity purification, for detecting or quantitating soluble zsig87 as a marker of underlying pathology or disease, for screening expression libraries, as antagonists to block zsig87 activity in vitro and in vivo and for diagnostic or therapeutic applications. Zsig87-cytokine fusion proteins or antibody-cytokine fusion proteins are useful for enhancing in vivo killing of target tissue for e.g. leukemia, blood and bone marrow cancers.

pp; 107 DwgNo 0/0

3/AB/12 (Item 4 from file: 351)
DIALOG(R)File 351:Derwent WPI

013760726
WPI Acc No: 2001-244938/200125
XRAM Acc No: C01-073539
XRPX Acc No: N01-174400

New isolated nucleic acid encoding a GL50 polypeptide for modulating a immune response and reducing the proliferation of a tumor cell

Patent Assignee: GENETICS INST INC (GEMY); GENETICS INST LLC (GENE-N)
Inventor: DUNUSSI-JOANNOPOLULOS K; LING V
Number of Countries: 094 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200121796	A2	20010329	WO 2000US25892	A	20000921	200125	B
AU 200075995	A	20010424	AU 200075995	A	20000921	200141	
EP 1218504	A2	20020703	EP 2000965251	A	20000921	200251	
			WO 2000US25892	A	20000921		

Priority Applications (No Type Date): US 99155043 P 19990921
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200121796	A2	E	194	C12N-015/12	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200075995	A		C12N-015/12	Based on patent WO 200121796
EP 1218504	A2	E	C12N-015/12	Based on patent WO 200121796

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): WO 200121796 A2

Abstract (Basic):

NOVELTY - An isolated nucleic acid molecule (I) encoding a GL50 polypeptide (II), is new.

DETAILED DESCRIPTION - A new isolated nucleic acid molecule (I) comprises:

(a) a sequence (S1) of 2718, 1759 or 953 base pairs (bps), given in the specification;

(b) a sequence encoding a polypeptide (II) with a sequence (S2) of

322, 347, or 309 amino acids, given in the specification;

(c) a sequence encoding a naturally occurring allelic variant of (II);

(d) a sequence 50 % identical to (S1) or a complement of it, that is: (i) an isolated fragment of 500 nucleotides of (S1) or a complement; (ii) a nucleic acid encoding a polypeptide with an amino acid sequence 60 % homologous to (II); or (iii) a nucleic acid encoding an isolated fragment of (II) with 15 contiguous amino acid residues of (S2);

(e) a sequence that hybridizes to (a), (c) or (d);

(f) a sequence complementary to (a), (c) or (e); or

(g) the nucleic acid of (a), (c) or (e) and a sequence encoding a heterologous polypeptide.

INDEPENDENT CLAIMS are also included for the following:

(1) a vector comprising (Ia), (Ic), or (Ie);

(2) a vector comprising a nucleotide sequence encoding a portion of a GL50 molecule that is a cytoplasmic domain;

(3) a host cell transfected with (2);

(4) producing (II) comprising culturing (3);

(5) an isolated polypeptide that is:

(a) an isolated fragment of 15 contiguous amino acids of (S2);

(b) a naturally occurring allelic variant of (S2) encoded by a nucleic acid which hybridizes to (Ia), (Ic) or (Ie), under stringent conditions;

(c) encoded by a nucleic acid comprising a sequence 50 % identical to a nucleic acid with the coding region of (S1); or

(d) a polypeptide comprising a sequence 50 % identical to (S2);

(6) a soluble polypeptide comprising an extracellular domain of a GL50 molecule;

(7) an antibody that selectively binds to (5);

(8) modulating (M1) an immune response comprising administering a GL50 modulating agent to a subject;

(9) modulating (M2) T cell costimulation comprising contacting an activated T cell with (II);

(10) detecting (M3) the presence of (5) in a sample comprising contacting the sample with a compound that selectively binds (5) and determining whether the compound binds to (5) in the sample;

(11) reducing (M4) the proliferation of a tumor cell comprising contacting an immune cell with an activating form of a GL50 molecule so that an immune response to the tumor cell is enhanced;

(12) screening (M5) for a compound which modulates GL50 mediated activation of an immune cell comprising contacting a polypeptide containing a domain of (II) with a test compound and a GL50 binding partner and identifying compounds that modulate the interaction of the polypeptide with the GL50 binding partner; and

(13) screening (M6) for a compound which modulates signal transduction in an immune cell comprising contacting an immune cell that expresses (II) with a test compound and determining the ability of the test compound to modulate signal transduction via (II).

ACTIVITY - Immunomodulatory; cytostatic; antiallergic; anti-HIV; virucide. Murine B lymphocyte activation antigen (B7.2)-immunoglobulin (Ig)G2a and GL50-IgG2a fusion proteins were generated, consisting of the extracellular domain of B7.2 or GL50, respectively and the Fc portion of murine IgG2a. Murine isotype IgG2a was used as a control. Mice bearing MethA or B16F1 melanoma tumors were treated subcutaneously with 50 micrograms/injection of each fusion protein twice weekly for three weeks. In the MethA model, treatment with B7.2-IgG2a resulted in up to 100 % tumor regression and cure of the mice and treatment with GL50-IgG2a resulted in up to 60-90 % cure of mice and 40 % significant tumor growth delay. In the B16F1 melanoma, systemic treatment with either protein led to comparable significant tumor growth delay. In both tumor models, control IgG2a treatment had no effect.

MECHANISM OF ACTION - T cell stimulator; gene therapy; vaccine.

USE - (II) and a GL50 modulating agent, preferably an antibody, are used to modulate an immune response in a subject. (II) is used to modulate T cell costumulation. (II) is used to reduce the proliferation of a tumor cell. (II) is used to screen for a compound which modulates GL50 mediated activation of an immune cell or modulates signal transduction in an immune cell (all claimed). (I) is also used to modulate an immune response by gene therapy. Fragments of (I) are used as hybridization probes for the detection of (I). (I), (II) and antibodies to (II) are used in predictive medicine (e.g. diagnostic assays, prognostic assays, monitoring clinical trails, and pharmacogenetics). Diseases that can be treated are graft-versus-host disease, autoimmune disease, allergies, acquired immune deficiency syndrome (AIDS), and viral infections. The GL50 molecules can be used in vaccines. (I) can be used to locate gene regions associated with genetic disease, in tissue typing, and in forensic identification of a biological sample.

pp; 194 DwgNo 0/31

3/AB/13 (Item 5 from file: 351)
DIALOG(R)File 351:Derwent WPI

013585706
WPI Acc No: 2001-069913/200108
XRAM Acc No: C01-019382

Rapid and accurate method for identifying a secreted mammalian protein comprises trapping signal sequence DNA from cDNA libraries by employing a signal trap vector, and detecting secretion of a reporter polypeptide

Patent Assignee: AMGEN INC (AMGE-N)
Inventor: PACIFICI R; ZHANG K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6150098	A	20001121	US 9826958	A	19980220	200108	B

Priority Applications (No Type Date): US 9826958 A 19980220
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6150098	A		13	C12Q-001/68	

Abstract (Basic): US 6150098 A
Abstract (Basic):

NOVELTY - Identifying a secreted mammalian protein comprising inserting a cDNA library into a signal trap vector to generate a signal trap library, where the vector comprises a DNA encoding a reporter polypeptide that is a secreted mammalian growth factor lacking a functional signal sequence, is new.

DETAILED DESCRIPTION - Identifying a secreted mammalian protein comprising inserting a cDNA library into a signal trap vector to generate a signal trap library, where the vector comprises a DNA encoding a reporter polypeptide that is a secreted mammalian growth factor lacking a functional signal sequence, is new.

The method comprises:

(a) constructing a mammalian cDNA library;

(b) inserting the cDNA library into a signal trap vector to generate a signal library, where the vector comprises a DNA encoding a reporter polypeptide, which is a secreted mammalian growth factor lacking a functional signal sequence;

(c) amplifying the signal trap library;

(d) transfecting the library of (c) into a mammalian host cell

lacking a functional reporter polypeptide of (b);
(e) selecting transfected mammalian host cells from (d) for growth in selective medium requiring secretion of the reporter polypeptide;
(f) analyzing the DNA recovered from the transfected cells of step (e), which exhibit growth on selective medium to determine whether a functional mammalian signal sequence is present; and
(g) screening a mammalian cDNA library to identify a full-length cDNA comprising the functional mammalian signal sequence of (f), where the cDNA encodes a secreted mammalian protein.
USE - The method is useful for identifying new secreted mammalian proteins. Specifically, the method is useful for providing signal trap vectors for identifying secreted proteins in mammalian host cells.
ADVANTAGE - Prior methods lack a convenient selection method for signal sequences in mammalian host cells. These methods involve screening many clones either by enzyme activity or immunoassay for secretion with no efficient way to select against clones not containing functional signal sequences. The present method is a rapid and accurate means of identifying novel secreted proteins. The present method also provides a positive selection for secretion from mammalian cells and reduces the need to screen all clones for signal sequences.

pp; 13 DwgNo 0/0

3/AB/14 (Item 6 from file: 351)
DIALOG(R)File 351:Derwent WPI

013376384
WPI Acc No: 2000-548322/200050
XRAM Acc No: C00-163601
Identifying novel secreted mammalian proteins by transforming a yeast cell with a cDNA library in a signal trap vector containing DNA encoding reporter polypeptide and detecting secretion of the polypeptide
Patent Assignee: AMGEN INC (AMGE-N)
Inventor: THUKRAL S K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6103472	A	20000815	US 9826959	A	19980220	200050	B

Priority Applications (No Type Date): US 9826959 A 19980220
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6103472	A		14	C12Q-001/68	

Abstract (Basic): US 6103472 A
Abstract (Basic):
NOVELTY - Identifying (I) a novel secreted mammalian protein, comprising constructing a cDNA library in a signal trap vector containing a DNA encoding a reporter polypeptide lacking a functional signal sequence for transformation into a yeast host cell, selecting transformed yeast cells and analyzing the DNA recovered from the transformed yeast cells to detect secretion of the reporter polypeptide.
DETAILED DESCRIPTION - Identifying a novel secreted mammalian protein involves:
(a) constructing a mammalian cDNA library;
(b) inserting the library into a signal trap vector comprising DNA encoding a reporter polypeptide selected from alpha-amylase, melibiase and inulase lacking functional signal sequence to generate a

signal trap library;
(c) amplifying the library and transforming into a yeast host cell lacking a functional gene encoding alpha-amylase or the selected reporter polypeptide;
(d) selecting transformed yeast cells for utilization of starch in growth medium;
(e) analyzing the DNA recovered from the transformed yeast cells to determine presence of functional mammalian signal sequence; and
(f) screening a mammalian cDNA library to identify a full-length cDNA comprising the functional mammalian signal sequence.
USE - The method is useful for identifying novel secreted mammalian proteins (claimed).
pp; 14 DwgNo 0/0

3/AB/15 (Item 7 from file: 351)
DIALOG(R)File 351:Derwent WPI

013033858
WPI Acc No: 2000-205709/200018
XRAM Acc No: C00-063489
XRPX Acc No: N00-153029
New polynucleotide encoding a member of trabecular meshwork-induced glucocorticoid response protein for treating ovarian, pancreatic, ocular, blood and bone disorders such as osteoporosis and Paget's disease
Patent Assignee: ZYMOGENETICS INC (ZYMO)
Inventor: CHANDRASEKHER Y; SHEPPARD P O; CHANDRASEKHER Y A
Number of Countries: 086 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200008154	A1	20000217	WO 99US17552	A	19990803	200018	B
AU 9954636	A	20000228	AU 9954636	A	19990803	200030	
EP 1102846	A1	20010530	EP 99940860	A	19990803	200131	
			WO 99US17552	A	19990803		
ZA 200100671	A	20011128	ZA 2001671	A	20010124	200202	
MX 2001001242	A1	20010701	MX 20011242	A	20010201	200236	
JP 2002524043	W	20020806	WO 99US17552	A	19990803	200266	
			JP 2000563779	A	19990803		

Priority Applications (No Type Date): US 98128372 A 19980803
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200008154	A1	E	138	C12N-015/12	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9954636	A		C12N-015/12	Based on patent WO 200008154
EP 1102846	A1	E	C12N-015/12	Based on patent WO 200008154

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

ZA 200100671	A	156	C07K-000/00	
MX 2001001242	A1		C07K-014/47	
JP 2002524043	W	136	C12N-015/09	Based on patent WO 200008154

Abstract (Basic): WO 200008154 A1
Abstract (Basic):
NOVELTY - An isolated polynucleotide (I) encoding a member of trabecular meshwork-induced glucocorticoid response protein, zsig58 polypeptide (II) is new.

DETAILED DESCRIPTION - (A) An isolated polynucleotide (I) encoding a zsig58 polypeptide (II) is 90% identical to an amino acid (aa) sequence (III) from:

(a) 141(Cys)-402(Lys);

(b) 26(Thr)-402(Lys), or

(c) 1(Met)-402(Lys) of a fully defined sequence (S1) of 402 aa.

The amino acid percent identity is determined using a FASTA program with ktup=1, gap opening penalty=10, gap extension penalty=1, and substitution matrix=BLOSUM62, with other parameters set as default.

INDEPENDENT CLAIMS are also included for the following:

(1) an expression vector (IV) comprising a transcription promoter, a DNA encoding (Ab) and a transcription terminator that are operably linked;

(2) a cultured cell comprising (IV);

(3) a DNA construct (V) encoding a fusion protein, comprising DNA segment encoding (Aa)-(Ac) or 26(Thr)-402(Lys) along with a DNA segment encoding an additional polypeptide linked in frame;

(4) a fusion protein produced by culturing a host cell introduced with the vector comprising (V);

(5) an isolated polypeptide (VI) comprising a sequence that is at least 90% identical to (III);

(6) production of zsig58 polypeptide;

(7) detection of a modulator of zsig58 protein activity in a test sample comprises adding the polypeptide comprising (b) to a zsig58 responsive cell transfected with reporter gene construct that is responsive to a zsig58 stimulated cellular pathway and comparing the levels of response to the zsig58 polypeptide in the presence and absence of the test sample;

(8) production of an antibody against zsig58 polypeptide;

(9) an antibody produced by the method (8), and

(10) antibody against (VI).

ACTIVITY - Osteopathic; cytostatic; antiinflammatory; vulnerary.

MECHANISM OF ACTION - Gonadotropin activity enhancer; hormone dependent tumor growth inhibitor.

USE - (I) is useful as probes and primers to clone 5' non coding regions of zsig58 gene; in gene therapy to increase or inhibit zsig58 activity. (II) is useful for studying mammalian cellular metabolism, insulin, pancreatic cell proliferation, differentiation, steroidogenesis and steroid hormone secretion; treating ovarian, pancreatic, ocular, blood or bone disorders such as osteoporosis, Paget's disease, hyperparathyroidism, osteomalacia, idiopathic hypercalcemia of infancy, acute pancreatitis, gastrointestinal disorders etc; as analgesics; for identifying cells, tissues and cell lines that respond to zsig58 stimulated pathway and inhibitors of its activity. (II), agonists and antagonist are useful for promoting wound healing, antimicrobial applications; as cell culture reagent; for modulating steroidogenesis, ovarian cycle; for treating reproductive disorders. zsig58 agonists are useful for stimulating cell growth and signal transduction; as reagents for characterizing sites of ligand-receptor interaction. Antibodies to zsig58 are useful for tagging the cells expressing zsig58. (II) is also useful for identifying and isolating receptors to which the zsig58 interacts; regulating the expansion of neuroendocrine and exocrine cells in the pancreas; for treating menopausal bleeding, symptoms associated with polycystic ovarian syndrome; for enhancing fertilization during assisted reproduction in humans and animals; as markers for cancer of reproductive organs and as therapeutic agent for hormone dependent cancers.

ADVANTAGE - (I) can interact with the calcitonin receptor and hence is useful in therapeutic application for which calcitonin is useful.

pp; 138 DwgNo 0/1

3/AB/16 (Item 8 from file: 351)
DIALOG(R)File 351:Derwent WPI

012925909
WPI Acc No: 2000-097745/200008
XRAM Acc No: C00-028464
Polynucleotides encoding the polypeptide zsig57 useful for regulating the immune system
Patent Assignee: ZYMOGENETICS INC (ZYMO)
Inventor: SHEPPARD P O
Number of Countries: 082 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9966040	A1	19991223	WO 99US11337	A	19990520	200008	B
AU 9941974	A	20000105	AU 9941974	A	19990520	200024	
EP 1088068	A1	20010404	EP 99925747	A	19990520	200120	
			WO 99US11337	A	19990520		
MX 2000012591	A1	20010501	MX 200012591	A	20001215	200227	
JP 2002518009	W	20020625	WO 99US11337	A	19990520	200243	
			JP 2000554849	A	19990520		

Priority Applications (No Type Date): US 9899600 A 19980618
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9966040	A1	E	144	C12N-015/12	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9941974	A		C12N-015/12	Based on patent WO 9966040
EP 1088068	A1	E	C12N-015/12	Based on patent WO 9966040

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

MX 2000012591	A1		C07K-014/705	
JP 2002518009	W	142	C12N-015/09	Based on patent WO 9966040

Abstract (Basic): WO 9966040 A1
Abstract (Basic):
NOVELTY - Polynucleotide encoding a zsig57 polypeptide which is a novel member of the immunoglobulin superfamily, is new.
DETAILED DESCRIPTION - Polynucleotide encoding a zsig57, comprising a sequence which is at least 90% identical to:
(a) residues 18 (Ile) to 108 (Gly) of a 199 amino acid sequence (I), given in the specification;
(b) residues 18 to 125 (Pro) of (I);
(c) residues 18 to 156 (Gln) of (I);
(d) residues 18 to 199 (Gly) of (I); and
(e) residues 1 (Met) to 199 of (I).
INDEPENDENT CLAIMS are also included for the following:
(1) an expression vector comprising a transcription promoter, a DNA segment residues 18 to 199 of (I), and a transcription terminator;
(2) a cultured cell containing the vector of (1);
(3) a fusion protein-encoding DNA construct comprising at least 1 segment encoding a polypeptide, connected in-frame to a DNA segment encoding:
(i) amino acids 1 to 17 (Gly) of (I);
(ii) amino acids 18 to 108 of (I);
(iii) amino acids 18 to 124 (Pro) of (I);

(iv) amino acids 18 to 156 of (I);
(v) amino acids 186 (Lys) to 199 of (I); or
(vi) amino acids 18 to 199 of (I);
(4) a fusion protein produced by culturing a host cell containing a vector encoding a fusion protein as in (3), and recovering the protein;
(5) producing a zsig57 polypeptide by culturing the cell of (2) and isolating the zsig polypeptide produced;
(6) an isolated polypeptide comprising a sequence that is at least 90 % identical to the amino acid sequences (a-e);
(7) producing an anti-zsig57 antibody by inoculating an animal with a polypeptide comprising:
(i) 9-199 contiguous amino acids from residues 18-199 of (I);
(ii) a polypeptide according to (5);
(iii) a polypeptide having an amino acid sequence from 186-199 of (I);
(iv) a polypeptide having an amino acid sequence from 18-108 of (I);
(v) a polypeptide having an amino acid sequence from 96 (Glu) to 101 (Glu) of (I);
(vi) a polypeptide having an amino acid sequence from 124 to 129 (Glu) of (I);
(vii) a polypeptide having an amino acid sequence from 125 to 130 (Glu) of (I);
(viii) a polypeptide having an amino acid sequence from 185 (Arg) to 190 (Glu) of sequence (I); or
(ix) a polypeptide having an amino acid sequence from 186 (Lys) to 191 (Ser) of (I); and
(8) an antibody produced by the method of (6) which binds to a zsig57 polypeptide.
ACTIVITY - Anti-inflammatory; antiasthmatic; antiarthritic; vulnery; antiviral; antimicrobial; osteoprotective; cytostatic; antithyroid; immunomodulatory.
MECHANISM OF ACTION - Gene therapy.
The Ig variable domain of the zsig polypeptide may be involved in binding another immunoglobulin superfamily of proteins.
USE - The zsig polypeptides, nucleic acids and/or antibodies can be used in treatment of disorders associated with the immune system, gastrointestinal system, heart, inflammation (asthma and arthritis), lymph system, bone marrow, blood and bones. Zsig57 may exhibit antiviral functions, immune cell proliferative activity and may stimulate the immune system to fight viral infections. The zsig polypeptides can be used to study pancreatic cell proliferation or differentiation. The invention also provides a method for studying insulin and of studying cellular metabolism. Also, zsig polypeptides, agonists or antagonists can be therapeutically useful for promoting wound healing, for example in the intestine and for anti-microbial applications. Zsig polypeptides, agonists or antagonists can be therapeutically useful for mucosal integrity maintenance. Biologically active zsig polypeptides that interact with the calcitonin receptor or exert other effects on bone could be used therapeutically, for example in the treatment of osteoporosis, Paget's disease, hyperparathyroidism, osteomalacia, idiopathic hypercalcemia of infancy and other conditions. Antibodies to zsig57 may be used for tagging cells that express zsig57, for isolating zsig57 by affinity purification, for diagnostic assays for determining circulating levels of zsig polypeptides, for detecting or quantitatin soluble zsig57 as marker of underlying pathology of disease, in analytical methods employing FACS, for screening expression libraries, for generating anti-idiotypic antibodies and as neutralizing antibodies or an antagonists to block zsig57 activity in vitro and in vivo. The antibodies can also be directly or indirectly conjugated to drugs, toxins, radionuclides, to be used diagnostically or therapeutically. Zsig57-cytokine fusion

proteins or antibody-cytokine fusion proteins can be used for enhancing in vivo killing of target tissues (cancerous cells). Polynucleotides encoding zsig57 polypeptides are useful within gene therapy applications where it is desired to increase of inhibit zsig57 activity. zsig57 can also be used as receptor for delivering gene therapy or other therapeutic molecules to target cells and tissues. The polynucleotides may be used to identify a region of the genome associated with human disease states.

ADVANTAGE - This invention provides a novel immune modulator.

pp; 144 DwgNo 0/2

3/AB/17 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0293661 DBR Accession No.: 2002-15508
Engineered viruses to select genes encoding secreted and membrane-bound proteins in mammalian cells - vector Sindbis virus-mediated envelope protein-E1 gene transfer and expression in BHK21 cell, useful for functional genomics
AUTHOR: MOFFATT P; SALOIS P; GAUMOND MH; ST-AMANT N; GODIN E; LANCTOT C
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JOURNAL: NUCLEIC ACIDS RESEARCH (30, 19, 4285-4294) 2002
ISSN: 0305-1048
LANGUAGE: English
ABSTRACT: AUTHOR ABSTRACT - We have developed a functional genomics tool to identify the subset of cDNAs encoding secreted and membrane-bound proteins within a library (the 'secretome'). A Sindbis virus replicon was engineered such that the envelope protein precursor no longer enters the secretory pathway. cDNA fragments werefused to the mutant precursor and expression screened for their ability torestore membrane localization of envelope proteins. In this way, recombinant replicons were released within infectious viral particles only if the cDNA fragment they contain encodes a secretory signal. By using engineered viral replicons to selectively export cDNAs of interest in the culture medium,the methodology reported here efficiently filters genetic information in mammalian cells without the need to select individual clones . This adaptation of the ' signal trap ' strategy is highly sensitive (1/200 000) and efficient. Indeed, of the 2546 inserts that were retrieved after screening variouslibraries, more than 97% contained a putative signal peptide. These 2473 clones encoded 419 unique cDNAs, of which 77% were previously annotated. Ofthe 94 cDNAs encoding proteins of unknown function, 24% either had no matchin databases or contained a secretory signal that could not be predicted from electronic data. DERWENT ABSTRACT: BHK21 cells were grown in a culture medium-supplemented with 5 % fetal cattle serum. Vector plasmid DNA (1 mg) was transfected using the FuGENE-6 reagent. RNA (8-10 ug) was transfected by electroporating BHK-21 cells. Culture medium was changed after 16 hr and left to accumulate viral particles for 4 hr. The culture medium was filtered through a 0.45 mm membrane and the viral titer was determined. BHK21 cells were infected at a maximal MOI of 0.1 for 2 hr and the culture medium was changed. Infected cells were processed after 20 hr(10 pages)

3/AB/18 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0286525 DBR Accession No.: 2002-08372 PATENT
New zsig87 polynucleotides and encoded polypeptides, useful for, e.g., studying pancreatic cell proliferation or differentiation, mammalian cellular metabolism, promoting wound healing, or treating cancers - vector-mediated recombinant protein gene transfer and expression in host cell, monoclonal antibody, agonist, antagonist, DNA probe and DNA primer for use in gene therapy
AUTHOR: SHEPPARD P O
PATENT ASSIGNEE: SHEPPARD P O 2001
PATENT NUMBER: US 20010044134 PATENT DATE: 20011122 WPI ACCESSION NO.: 2002-105570 (200214)
PRIORITY APPLIC. NO.: US 733523 APPLIC. DATE: 20001208
NATIONAL APPLIC. NO.: US 733523 APPLIC. DATE: 20001208
LANGUAGE: English
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A polypeptide comprising a sequence of amino acid residues that is at least 90% to a sequence comprising amino acids 27 (R)-56 (C) (AA1), amino acids 16 (E)-84 (P) (AA2), or amino acids 1(M)-84(P) (AA3) of a specified 84 amino acid sequence (I) (not defined in the specification), is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an expression vector comprising the following operably linked elements: a transcription promoter, a DNA segment encoding AA1 comprising amino acids 16-84, and a transcription terminator; (2) a cultured cell into which has been introduced an expression vector of (1) and which expresses the polypeptide encoded by the DNA segment; (3) a DNA construct comprising a first segment encoding AA1, AA2 or AA3, and at least one other DNA segment encoding an additional polypeptide, where the DNA segments are connected in-frame and encode a fusion protein; (4) a fusion protein produced by culturing a host cell into which has been introduced a vector comprising the operably linked elements transcriptional promoter, a DNA construct of (3) and a transcriptional terminator; (5) an isolated polynucleotide encoding a polypeptide comprising a amino acid sequence that is at least 90% identical to AA1, AA2 or AA3; (6) a method of producing a polypeptide by culturing a host cell of (2) and isolating the polypeptide produced by the cell; (7) a method of producing an antibody to a polypeptide by inoculating an animal with a polypeptide selected from a polypeptide of (5), AA1, AA2, a polypeptide comprising amino acids 57-84, 39-45, 41-47, 68-73, 77-82 and 68-82 of (I), where the polypeptide elicits an immune response in the animal to produce the antibody, and isolating the antibody from the animal; (8) an antibody produced from the method of (7), or which specifically binds to the polypeptide of (5); and (9) methods for detecting a genetic abnormality or cancer in a patient. WIDER DISCLOSURE - Also disclosed is a method of detecting modulators of zsig87 protein activity. BIOTECHNOLOGY - Preparation: The polypeptide was prepared using standard recombinant procedures. Preferred Polypeptide: The polypeptide is encoded by a sequence comprising nucleotides 198-287 (S1), 165-371 (S2), or 120-371 of a 456 bp sequence, (not defined in the specification), or the complement of S1 or S2. The polynucleotide may alternatively comprise a sequence of nucleotides 1-252 of defined sequence (II) (not given in the specification). The polynucleotide encodes a polypeptide that further comprises a cysteine motif spaced apart from N-terminus to C-terminus in a configuration represented by (A): C = Cysteine; G = Glycine; K/R = Lysine or Arginine; () = number of amino acid residues between the amino acids; and (9/13) = number of amino acid residues between the amino acids is 9 or 13.Preferred Vector: The vector further comprises a secretory signal sequence operably linked to the DNA segment. Preferred Methods: Detecting genetic abnormality in a patient comprises producing a first reaction product by incubating the genetic sample with at least 14 contiguous nucleotides of (I), or a complement of (I), under

conditions allowing the polynucleotide to hybridize to the complementary sequence of the polynucleotide; visualizing the first reaction product; and comparing the first reaction product to control reaction product from a patient, where the difference between the first reaction product and the control indicates genetic abnormality. Detecting a cancer in a patient comprises obtaining a tissue or biological sample from a patient; incubating the sample with an antibody that specifically binds to the polypeptide defined above, under conditions where the antibody binds to the complementary polypeptide in the sample; visualizing the antibody bound in the sample; and comparing the level of antibody bound in the sample from the patient, with that of a control tissue. Alternatively, the method comprises incubating the sample obtained from the patient with a labeled polynucleotide comprising at least 14 contiguous of (I) or the complement of (I); visualizing the labeled polynucleotide in the sample; and comparing the level of labeled polynucleotide to a control sample. An increase or decrease in the level of the antibody bound to the sample, or in the amount of labeled polynucleotide hybridization relative to the control indicates cancer. Preferred Antibody: The antibody is preferably a monoclonal antibody.ACTIVITY - Cytostatic; antidiabetic; anti-inflammatory; antiasthmatic; antiarthritic; vulnerary; antibacterial; fungicide; virucide. No supporting data available. MECHANISM OF ACTION - Gene therapy; hormone; growth factor. No supporting data available. USE - Zsig87 polypeptides comprise novel hormones and growth factors that are useful in studying pancreatic cell proliferation or differentiation, insulin, or mammalian cellular metabolism; for promoting wound healing; for treating ovarian, testicular, pancreatic, ocular, immune, lymphatic or blood disorders; in identifying inhibitors or agonists of polypeptide activity; for enhancing fertilization during assisted reproduction in humans and animals; as germ-cell specific antigen; in preparing antibodies that bind zsig87 epitopes, peptides or polypeptides; and for treating diabetes and pancreatic cancer. Zsig87 polypeptides, agonists or antagonists can be used for antimicrobial applications; as cell culture reagents in in vitro studies of exogenous microorganism infection, such as bacterial, viral or fungal infection n; to modulate sperm capacitation; to treat disorders associated with, e.g., gonadal development, pregnancy, pubertal changes, menopause, ovarian cancer, fertility, ovarian function, polycystic ovarian syndrome, male sexual disorder, testicular or stomach cancer; and in inflammatory diseases such as asthma and arthritis (all disclosed). The Zsig87 polynucleotide can be used in a method to detect cancer (claimed). Zsig87 87 polynucleotides can be used as probes or primers to clone 5' non-coding regions of a zsig87 gene, to identify cells, tissues or cell lines which respond to a zsig87-stimulated pathway, and in gene therapy. ADMINISTRATION - Administration is parenteral, particularly intravenous or subcutaneous. Dosage is 0.1-100 microg/kg, preferably 0.5-20 microg/kg per day. EXAMPLE - Scanning of translated testis, and mast cell library DNA databases using a signal trap as a query resulted in the identification of expressed sequence tag sequences that were found to be homologous to a human secretory signal sequence. Confirmation of the EST sequence was made by sequence analyses of the cDNA from which the EST originated. This cDNA was contained in a plasmid and was sequenced using standard methods to complete the double stranded sequence of this clone . The resulting sequence comprises a fully defined 456 bp sequence given in the specification, and the secreted polypeptide was designated zsig87 having a sequence of 84 amino acids also given in the specification. (36 pages)

3/AB/19 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0259558 DBR Accession No.: 2000-14048 PATENT
Identifying novel secreted mammalian proteins by transforming a yeast cell with a cDNA library in a signal trap vector containing DNA encoding reporter protein and detecting secretion of the protein - involving vector plasmid pYYA-41L-mediated Lipomyces kononenkoe alpha-amylase gene transfer for expression in Escherichia coli
AUTHOR: Thukral S K
CORPORATE SOURCE: Thousand Oaks, CA, USA.
PATENT ASSIGNEE: Amgen 2000
PATENT NUMBER: US 6103472 PATENT DATE: 20000815 WPI ACCESSION NO.: 2000-548322 (2050)
PRIORITY APPLIC. NO.: US 26959 APPLIC. DATE: 19980220
NATIONAL APPLIC. NO.: US 26959 APPLIC. DATE: 19980220
LANGUAGE: English
ABSTRACT: Identifying (I) a novel secreted mammalian protein, comprising constructing a cDNA library in a signal trap vector containing a DNA encoding a reporter protein lacking a functional signal sequence for transformation into a yeast host cell, selecting transformed yeast cells and analyzing the DNA recovered from the transformed yeast cells to detect secretion of the reporter protein. The method is useful for identifying novel secreted mammalian proteins. (I) involved: constructing a mammalian cDNA library; inserting the library into a signal trap vector; amplifying the library and transforming into a yeast host cell; selecting transformed yeast cell for utilization of starch in growth medium; analyzing the DNA recovered; and screening a mammalian cDNA library. In an example, a cDNA sequence of the Lipomyces kononenkoe alpha-amylase (EC-3.2.1.1) gene was amplified by the polymerase chain reaction and cloned into vector plasmid pYYA-41L which was then transformed into Escherichia coli DH10B cells. (14pp)
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